

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 25, 2006, 18:42:01 ; Search time 71 Seconds

(without alignments)
168.929 Million cell updates/sec

Title: US-10-737-290-172

Perfect score: 92

Sequence: 1 CPGKQMDRISSSSGLGC 17

Scoring table:

Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 1000 summaries

Database : UniProt_05.80.*

1: uniprot_sprot.*

2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query Match | Length | ID | Description |
|------------|-------|-------------|--------|----------------|--------------------|
| 1 | 92 | 100.0 | 134 | 1 ANFB_HUMAN | P16860 homo sapien |
| 2 | 92 | 100.0 | 134 | 2 Q6EGY0_HUMAN | Q6EGY0 homo sapien |
| 3 | 76 | 82.6 | 103 | 1 ANFB_BOVIN | P13204 bos taurus |
| 4 | 76 | 82.6 | 112 | 2 Q9GLK5_FELCA | Q9GLK5 felis silve |
| 5 | 76 | 82.6 | 126 | 1 ANFC2_ORYLA | Q8AYR5 oryzias lat |
| 6 | 76 | 82.6 | 129 | 1 ANFB_SHEEP | Q46541 ovis aries |
| 7 | 76 | 82.6 | 131 | 1 ANFB_PIG | P07634 sus scrofa |
| 8 | 76 | 82.6 | 132 | 1 ANFB_FELCA | Q9GLK4 felis silve |
| 9 | 76 | 82.6 | 132 | 2 Q6L7Z3_CAMDR | Q6L7Z3 camelus dro |
| 10 | 76 | 82.6 | 140 | 1 ANFB_CANFA | P16859 canis fami |
| 11 | 76 | 82.6 | 146 | 2 Q7T2I7_ONCMY | Q7T2I7 oncorhynch |
| 12 | 76 | 82.6 | 148 | 2 Q78AW6_SALSA | Q78AW6 salmo salar |
| 13 | 76 | 82.6 | 152 | 2 Q9YGJ1_SALSA | Q9YGJ1 salmo salar |
| 14 | 74 | 80.4 | 37 | 1 NFNP_PSEPC | P82972 pseudoceras |
| 15 | 74 | 80.4 | 38 | 2 Q7LZ09_VIPLE | Q7LZ09 vipera lebe |
| 16 | 74 | 80.4 | 83 | 2 Q4TD23_TETNG | Q4td23 tetraodon n |
| 17 | 74 | 80.4 | 133 | 1 ANFB_FUGRU | Q805d7 fugu rubrip |
| 18 | 74 | 80.4 | 138 | 1 ANFB_OREMO | Q805e8 oreochromis |
| 19 | 74 | 80.4 | 146 | 2 Q7TIQ2_ORYLA | Q7TIQ2 oryzias lat |
| 20 | 74 | 80.4 | 150 | 1 ANFC_ACITR | Q76KW6 acipenser t |
| 21 | 74 | 80.4 | 162 | 2 Q7YZU5_EPTBU | Q7YZU5 eptatretus |
| 22 | 73 | 79.3 | 25 | 2 Q4SND6_TETNG | Q4snd6 tetraodon n |
| 23 | 73 | 79.3 | 33 | 2 Q9QZ96_CAVPO | Q9QZ96 cavia porce |
| 24 | 73 | 79.3 | 126 | 1 ANFC1_FUGRU | Q805d6 fugu rubrip |
| 25 | 73 | 79.3 | 126 | 1 ANFC_BOVIN | P55206 bos taurus |
| 26 | 73 | 79.3 | 126 | 1 ANFC_HUMAN | P23582 homo sapien |
| 27 | 73 | 79.3 | 126 | 1 ANFC_MOUSE | Q61839 mus musculu |
| 28 | 73 | 79.3 | 126 | 1 ANFC_PIG | P18104 sus scrofa |
| 29 | 73 | 79.3 | 126 | 1 ANFC_RAT | P55207 rattus norv |
| 30 | 73 | 79.3 | 126 | 1 ANFC_SHEEP | P56283 ovis aries |
| 31 | 73 | 79.3 | 126 | 2 Q4ZG41_HUMAN | Q4ZG41 homo sapien |

| | | | | | |
|-----|----|------|-----|------------------|--------------------|
| 32 | 73 | 79.3 | 126 | 2 Q544K5_MOUSE | Q544K5 mus musculu |
| 33 | 73 | 79.3 | 131 | 1 ANFC1_ONCMY | Q8AXR3 oncorhynch |
| 34 | 73 | 79.3 | 131 | 1 ANFC1_ORYLA | Q8AYR6 oryzias lat |
| 35 | 73 | 79.3 | 131 | 1 ANFC2_ONCMY | Q8AXR2 oncorhynch |
| 36 | 73 | 79.3 | 131 | 2 Q805E7_OREMO | Q805e7 oreochromis |
| 37 | 73 | 79.3 | 137 | 2 Q5Y820_XENLA | Q5Y820 xenopus lae |
| 38 | 73 | 79.3 | 138 | 2 Q4T953_TETNG | Q4T953 tetraodon n |
| 39 | 73 | 79.3 | 139 | 1 ANF_FUGRU | Q805d8 fugu rubrip |
| 40 | 73 | 79.3 | 140 | 1 ANF_CHICK | P18908 gallus gall |
| 41 | 73 | 79.3 | 140 | 1 ANF_OREMO | Q805e9 oreochromis |
| 42 | 73 | 79.3 | 147 | 2 Q8VHG9_TOTAL | Q8VHG9 notomys ale |
| 43 | 73 | 79.3 | 181 | 2 Q90Y11_CRODU | Q90Y11 crotalus du |
| 44 | 73 | 79.3 | 181 | 2 Q90Y12_CRODU | Q90Y12 crotalus du |
| 45 | 72 | 78.3 | 22 | 1 ANFC_CHICK | P21805 gallus gall |
| 46 | 72 | 78.3 | 27 | 1 ANFC_ANGJA | P18144 anguilla ja |
| 47 | 72 | 78.3 | 101 | 2 Q4S797_TETNG | Q4S797 tetraodon n |
| 48 | 72 | 78.3 | 120 | 1 ANFC4_FUGRU | Q805d3 fugu rubrip |
| 49 | 72 | 78.3 | 121 | 1 ANFC4_ORYLA | Q805i7 oryzias lat |
| 50 | 72 | 78.3 | 130 | 1 ANFC2_FUGRU | Q805d5 fugu rubrip |
| 51 | 72 | 78.3 | 131 | 1 ANFC_ANGJA | P18145 anguilla ja |
| 52 | 72 | 78.3 | 140 | 2 Q9PSV1_ANGJA | Q9PSV1 anguilla ja |
| 53 | 72 | 78.3 | 150 | 1 ANFV_ANGJA | P22642 anguilla ja |
| 54 | 72 | 78.3 | 277 | 2 Q4TBD2_TETNG | Q4TBD2 tetraodon n |
| 55 | 71 | 77.2 | 149 | 1 ANF_CANFA | P07499 canis fami |
| 56 | 71 | 77.2 | 150 | 1 ANFB_ACITR | P83365 acipenser t |
| 57 | 71 | 77.2 | 150 | 1 ANF_PIG | P24259 sus scrofa |
| 58 | 71 | 77.2 | 151 | 2 Q5JZE1_HUMAN | Q5JZE1 homo sapien |
| 59 | 71 | 77.2 | 152 | 1 ANF_BOVIN | P07501 bos taurus |
| 60 | 71 | 77.2 | 152 | 1 ANF_SHEEP | Q46540 ovis aries |
| 61 | 71 | 77.2 | 152 | 1 ANF_L7Z4_CAMDR | Q6L7Z4 camelus dro |
| 62 | 71 | 77.2 | 152 | 2 Q9TQW1_BALPH | Q9TQW1 balaeopter |
| 63 | 71 | 77.2 | 153 | 1 ANF_FELCA | Q9GID0 felis silve |
| 64 | 71 | 77.2 | 153 | 1 ANF_HORSE | P27104 equus cabal |
| 65 | 71 | 77.2 | 153 | 1 ANF_HUMAN | P01160 homo sapien |
| 66 | 71 | 77.2 | 155 | 2 Q29130_TUPGB | Q29130 tupaia glis |
| 67 | 70 | 76.1 | 118 | 1 ANFD_RANCA | P40756 rana cateeb |
| 68 | 70 | 76.1 | 135 | 1 ANFC_SQUAC | P41319 squalus aca |
| 69 | 70 | 76.1 | 144 | 2 Q805E6_FUNHE | Q805e6 fundulus he |
| 70 | 70 | 76.1 | 221 | 2 Q7TIM4_BOTJR | Q7TIM4 bothrops ja |
| 71 | 70 | 76.1 | 256 | 2 Q6LEM5_BOTJA | Q6LEM5 bothrops ja |
| 72 | 70 | 76.1 | 263 | 2 Q9PT52_AKGHA | Q9PT52 agkistrodon |
| 73 | 70 | 76.1 | 265 | 2 Q8QG91_BOTIN | Q8QG91 bothrops in |
| 74 | 69 | 75.0 | 115 | 1 ANFC_SCYCA | P23259 scyllorhinu |
| 75 | 69 | 75.0 | 136 | 1 ANFC_TRISC | P55208 triakis scy |
| 76 | 69 | 75.0 | 265 | 2 Q9PW56_BOTJA | Q9PW56 bothrops ja |
| 77 | 68 | 73.9 | 129 | 1 ANFC_RANCA | P20968 rana cateeb |
| 78 | 67 | 72.8 | 106 | 2 Q6VYM3_BRARE | Q6VYM3 brachydano |
| 79 | 67 | 72.8 | 152 | 1 ANF_MOUSE | P05125 mus musculu |
| 80 | 67 | 72.8 | 152 | 1 ANF_RAT | P01161 rattus norv |
| 81 | 67 | 72.8 | 152 | 2 Q5FW59_MOUSE | Q5FW59 mus musculu |
| 82 | 67 | 72.8 | 152 | 2 Q8VHH2_NOTAL | Q8VHH2 notomys ale |
| 83 | 67 | 72.8 | 153 | 1 ANF_RABIT | P07500 oryctolagus |
| 84 | 66 | 71.7 | 30 | 1 ANF_RANRI | P09196 rana ridibu |
| 85 | 66 | 71.7 | 104 | 2 Q6DF98_XENLA | Q6DF98 xenopus lae |
| 86 | 66 | 71.7 | 145 | 1 ANF_RANCA | P18909 rana cateeb |
| 87 | 66 | 71.7 | 145 | 2 Q5XPR8_RANRI | Q5XPR8 rana ridibu |
| 88 | 66 | 71.7 | 159 | 2 Q90XG1_BUFMA | Q90XG1 bufo marinu |
| 89 | 65 | 70.7 | 35 | 2 Q8PRU2_ONCMY | Q8PRU2 oncorhynch |
| 90 | 65 | 70.7 | 39 | 1 VNOC_OXYMI | P83230 oxyuranus m |
| 91 | 65 | 70.7 | 39 | 1 VNOC_OXYSA | P83231 oxyuranus s |
| 92 | 65 | 70.7 | 121 | 1 ANFB_MOUSE | P40753 mus musculu |
| 93 | 65 | 70.7 | 121 | 2 Q794A8_MOUSE | Q794A8 mus musculu |
| 94 | 65 | 70.7 | 121 | 2 Q91V40_MUSSI | Q91V40 mus spicile |
| 95 | 65 | 70.7 | 121 | 2 Q54AB9_MOUSE | Q54AB9 mus musculu |
| 96 | 65 | 70.7 | 121 | 2 Q55086_MOUSE | Q55086 mus musculu |
| 97 | 65 | 70.7 | 128 | 1 ANF_CAVPO | P27596 cavia porce |
| 98 | 65 | 70.7 | 139 | 2 P79799_MICCO | P79799 micrurus co |
| 99 | 65 | 70.7 | 147 | 2 Q9DGR8_XENLA | Q9DGR8 xenopus lae |
| 100 | 65 | 70.7 | 149 | 2 Q7T2I6_ONCMY | Q7T2I6 oncorhynch |
| 101 | 64 | 69.6 | 112 | 1 ANFC3_ORYLA | Q800i8 oryzias lat |
| 102 | 63 | 68.5 | 38 | 1 DNP_DENAN | P28374 dendroaspis |
| 103 | 63 | 68.5 | 53 | 2 Q8QG97_DENAN | Q8QG97 dendroaspis |
| 104 | 63 | 68.5 | 121 | 1 ANFB_RAT | P13205 rattus norv |

| | | | | | | | | | | | | | | | |
|-----|------|------|------|---|---------------|--------|-------------|-----|------|------|------|---|--------------|---------|--------------|
| 105 | 62 | 67.4 | 111 | 2 | Q8HXV3_SAGOE | Q8bxv3 | seaginus oe | 178 | 41 | 44.6 | 183 | 2 | Q9LK59_ARATH | Q9lk59 | arabidopsis |
| 106 | 62 | 67.4 | 111 | 2 | Q8HXV4_9PRIM | Q8bxv4 | macaca sp. | 179 | 41 | 44.6 | 231 | 2 | Q8KBV3_CHLTE | Q8kbv3 | chlorobium |
| 107 | 62 | 67.4 | 111 | 2 | Q8HXV5_PONPY | Q8bxv5 | pongo pygma | 180 | 41 | 44.6 | 307 | 1 | SFT3_SCHPO | O14311 | schizosacch |
| 108 | 62 | 67.4 | 111 | 2 | Q8HXV6_9PRIM | Q8bxv6 | gorilla gor | 181 | 41 | 44.6 | 314 | 1 | Q4J243_AZOV1 | Q4j243 | azotobacter |
| 109 | 62 | 67.4 | 111 | 2 | Q8HXV7_PANTR | Q8bxv7 | pan troglod | 182 | 41 | 44.6 | 327 | 2 | Q81GC1_BACCR | Q81gc1 | bacillus ce |
| 110 | 62 | 67.4 | 142 | 1 | ANF_ACTTR | P83964 | acipenser t | 183 | 41 | 44.6 | 338 | 2 | Q63U31_BURPS | Q63u31 | burkholderi |
| 111 | 61 | 66.3 | 35 | 1 | VNOA_OXYMI | P83224 | oxyuranus m | 184 | 41 | 44.6 | 338 | 2 | Q62K99_BURMA | Q62k99 | burkholderi |
| 112 | 61 | 66.3 | 35 | 1 | VNOA_OXYSA | P83225 | oxyuranus s | 185 | 41 | 44.6 | 366 | 2 | Q75HQ9_ORYSA | Q75hq9 | oryza sativ |
| 113 | 61 | 66.3 | 35 | 1 | VNOA_OXYSC | P83226 | oxyuranus s | 186 | 41 | 44.6 | 441 | 2 | Q2O533_9EURO | O20533 | ascosphaera |
| 114 | 61 | 66.3 | 35 | 1 | VNOB_OXYSA | P83227 | oxyuranus s | 187 | 41 | 44.6 | 523 | 2 | Q92YU3_RHIME | Q92yu3 | rhizobium m |
| 115 | 61 | 66.3 | 35 | 1 | VNOB_OXYSC | P83228 | oxyuranus s | 188 | 41 | 44.6 | 620 | 2 | Q8O5Z6_MOUSE | Q805z6 | mus musculus |
| 116 | 61 | 66.3 | 35 | 1 | Q4VR12_OXYSK | P83229 | oxyuranus s | 189 | 41 | 44.6 | 650 | 2 | Q58EJ8_BRARE | Q58ej8 | brachydanio |
| 117 | 60 | 65.2 | 128 | 2 | Q4T954_TETNG | Q4vr12 | oxyuranus s | 190 | 41 | 44.6 | 681 | 2 | Q7ZZ29_BRARE | Q7zz29 | brachydanio |
| 118 | 60 | 65.2 | 158 | 1 | ANFC3_FUGRU | Q4t954 | tetraodon n | 191 | 41 | 44.6 | 738 | 2 | Q9A3Z5_CAUCR | Q9a3z5 | caulobacter |
| 119 | 60 | 65.2 | 158 | 1 | ANFC3_FUGRU | Q805d4 | fugu rubrip | 192 | 41 | 44.6 | 745 | 2 | Q6CVJ4_KULJA | Q6cvj4 | kluveromyc |
| 120 | 59 | 64.1 | 145 | 1 | ANFV_ACTR | P83962 | acipenser t | 193 | 41 | 44.6 | 746 | 2 | Q92457_TIRE | Q92457 | trichoderma |
| 121 | 56 | 60.9 | 126 | 2 | Q9D288_MOUSE | Q7una6 | rhodopirell | 194 | 41 | 44.6 | 757 | 2 | Q928E8_LISIN | Q928e8 | listeria in |
| 122 | 51 | 55.4 | 420 | 2 | Q7UNAG_RHOBA | Q7una6 | rhodopirell | 195 | 41 | 44.6 | 797 | 2 | Q9HXV4_PSEAR | Q9hxy4 | pseudomonas |
| 123 | 46 | 50.0 | 407 | 1 | PRGR_RANDY | Q9ldg7 | arabidopsis | 196 | 41 | 44.6 | 914 | 1 | GUX2_CLOSR | P50900 | clostridium |
| 124 | 46 | 50.0 | 407 | 1 | PRGR_RANDY | Q7xzt1 | xenopus lae | 197 | 41 | 44.6 | 946 | 2 | Q5CX18_CHYPV | Q5cx18 | cryptospori |
| 125 | 46 | 50.0 | 407 | 1 | PRGR_RANDY | Q8ay12 | rana dybows | 198 | 41 | 44.6 | 999 | 2 | Q4QSS1_LEIMA | Q4qss1 | leishmania |
| 126 | 46 | 50.0 | 723 | 2 | Q7NB62_PHOLL | Q8ay12 | rana dybows | 199 | 41 | 44.6 | 1586 | 2 | Q5JPZ2_ORYSA | Q5jpz2 | oryza sativ |
| 127 | 45.5 | 49.5 | 265 | 2 | Q7NB62_PHOLL | Q7nb62 | photorhabd | 200 | 41 | 44.6 | 1586 | 2 | Q5JPZ2_ORYSA | Q61211 | caenorhabdi |
| 128 | 45 | 48.9 | 33 | 2 | Q9GLD8_FELCA | Q9glD8 | felis silve | 201 | 40.5 | 44.0 | 292 | 2 | Q4NX98_9DELT | Q4nx98 | anaeromyxob |
| 129 | 45 | 48.9 | 381 | 2 | Q75UA9_DICDI | Q55aq3 | dictyosteli | 202 | 40.5 | 44.0 | 970 | 2 | Q80790_ARATH | Q80790 | arabidopsis |
| 130 | 45 | 48.9 | 381 | 2 | Q55AQ3_DICDI | Q55aq3 | dictyosteli | 203 | 40 | 43.5 | 53 | 2 | Q8CLV0_YERPE | Q8clv0 | versinia pe |
| 131 | 44.5 | 48.4 | 588 | 1 | COBB_PAROL | Q4xk16 | pseudomonas | 204 | 40 | 43.5 | 61 | 2 | Q5NHV0_FRATT | Q5nhv0 | francisella |
| 132 | 44 | 47.8 | 145 | 2 | Q4XK16_PSESY | Q4xk16 | pseudomonas | 205 | 40 | 43.5 | 116 | 2 | Q8DLJ8_SNYEL | Q8dlj8 | synecococc |
| 133 | 44 | 47.8 | 226 | 2 | Q8GVG8_ARATH | Q8gvG8 | arabidopsis | 206 | 40 | 43.5 | 152 | 2 | Q7RUF0_NEUCR | Q7ruf0 | neurospora |
| 134 | 44 | 47.8 | 465 | 2 | Q4REVI_TETNG | Q8ayv1 | tetraodon n | 207 | 40 | 43.5 | 163 | 2 | Q28954_PIG | Q28954 | sus scrofa |
| 135 | 44 | 47.8 | 496 | 2 | Q8YUJ1_BROME | Q8yuj1 | brucella me | 208 | 40 | 43.5 | 184 | 2 | Q6S8Z8_PLAFA | Q6s8z8 | plasmodium |
| 136 | 44 | 47.8 | 533 | 2 | Q8FY42_BRUSU | Q8fy42 | brucella su | 209 | 40 | 43.5 | 223 | 2 | Q7UM83_RHOBA | Q7um83 | rhodopirell |
| 137 | 44 | 47.8 | 533 | 2 | Q9FH36_RHILLO | Q9fh36 | rhizobium l | 210 | 40 | 43.5 | 247 | 2 | Q6TXH7_ORYSA | Q6txh7 | oryza sativ |
| 138 | 44 | 47.8 | 540 | 2 | Q92KZ4_RHIME | Q92kz4 | rhizobium m | 211 | 40 | 43.5 | 267 | 2 | Q9HFP0_COGL | Q9hfp0 | colletotric |
| 139 | 44 | 47.8 | 740 | 2 | Q5Z8V2_ORYSA | Q5z8v2 | oryza sativ | 212 | 40 | 43.5 | 272 | 1 | KSGA_GLOVI | Q7hj41 | g dimethyla |
| 140 | 44 | 47.8 | 346 | 2 | Q8IEU9_PLAF7 | Q8ieu9 | plasmodium | 213 | 40 | 43.5 | 295 | 2 | Q9AJL9_HYDTH | Q9ajl9 | hydrogenoba |
| 141 | 43 | 46.7 | 161 | 2 | Q6YZB8_ORYSA | Q6yzb8 | oryza sativ | 214 | 40 | 43.5 | 298 | 1 | MCE5_ENCCU | Q8ar66 | encephalito |
| 142 | 43 | 46.7 | 166 | 2 | Q9FVM2_ARATH | Q9fvm2 | arabidopsis | 215 | 40 | 43.5 | 302 | 2 | Q7O4A7_THETE | Q7o4a7 | thermoprote |
| 143 | 43 | 46.7 | 182 | 2 | Q6NLT6_ARATH | Q6nlt6 | arabidopsis | 216 | 40 | 43.5 | 340 | 2 | Q94J06_FIGES | Q94j06 | fugus rubrip |
| 144 | 43 | 46.7 | 231 | 2 | Q9FX12_ARATH | Q9fx12 | arabidopsis | 217 | 40 | 43.5 | 358 | 2 | Q57588_LUGRU | Q57588 | lycopersico |
| 145 | 43 | 46.7 | 325 | 2 | Q6FRI8_CANGA | Q6fri8 | candida gla | 218 | 40 | 43.5 | 379 | 2 | Q5YPU6_NOCFA | Q5ypu6 | nocardia fa |
| 146 | 43 | 46.7 | 490 | 2 | Q5CNT5_CRYHO | Q5cnt5 | cryptospori | 219 | 40 | 43.5 | 396 | 2 | Q7VTD8_BORPE | Q7vtd8 | bordetella |
| 147 | 43 | 46.7 | 522 | 2 | Q22042_CABEL | Q22042 | caenorhabdi | 220 | 40 | 43.5 | 396 | 2 | Q7WC88_BORPA | Q7wc88 | bordetella |
| 148 | 43 | 46.7 | 747 | 1 | AGALC_ASPNG | Q9uuz4 | aspergillus | 221 | 40 | 43.5 | 396 | 2 | Q7WQ92_BORBR | Q7wq92 | bordetella |
| 149 | 43 | 46.7 | 1045 | 2 | Q4TEW9_TETNG | Q4tbw9 | tetraodon n | 222 | 40 | 43.5 | 399 | 2 | Q8QC6_STRAW | Q82qc6 | streptomyce |
| 150 | 42.5 | 46.2 | 525 | 2 | Q4RLN7_TETNG | Q4rln7 | tetraodon n | 223 | 40 | 43.5 | 426 | 2 | Q7AU15_ACLIL | Q7au15 | acinetobact |
| 151 | 42 | 45.7 | 196 | 2 | Q9ZNF1_ECOLI | Q9znf1 | escherichia | 224 | 40 | 43.5 | 468 | 2 | Q4RSU7_TETNG | Q4rsu7 | tetraodon n |
| 152 | 42 | 45.7 | 259 | 2 | Q9LS14_ARATH | Q9ls14 | arabidopsis | 225 | 40 | 43.5 | 494 | 2 | Q60UV4_CAENR | Q60uv4 | caenorhabdi |
| 153 | 42 | 45.7 | 273 | 2 | Q25312_HELPY | Q25312 | helicobacte | 226 | 40 | 43.5 | 494 | 2 | Q51TS8_MAGGR | Q51ts8 | magnaporthe |
| 154 | 42 | 45.7 | 273 | 2 | Q9ZLP0_HELPY | Q9zlp0 | helicobacte | 227 | 40 | 43.5 | 578 | 2 | Q5B7X8_EMENI | Q5b7x8 | aspergillus |
| 155 | 42 | 45.7 | 274 | 2 | Q68229_HELPY | Q68229 | helicobacte | 228 | 40 | 43.5 | 629 | 2 | Q63NX0_BURPS | Q63nx0 | burkholderi |
| 156 | 42 | 45.7 | 326 | 2 | Q9J1B3_9REOV | Q9j1b3 | avian reovi | 229 | 40 | 43.5 | 629 | 2 | Q62A37_BURMA | Q62a37 | burkholderi |
| 157 | 42 | 45.7 | 433 | 2 | Q4P883_USTWA | Q4p883 | ustilago ma | 230 | 40 | 43.5 | 637 | 2 | Q5L152_BACFN | Q5l152 | bacteroides |
| 158 | 42 | 45.7 | 434 | 2 | Q8LCL1_ARATH | Q8lcl1 | arabidopsis | 231 | 40 | 43.5 | 637 | 2 | Q5L152_BACFN | Q64257 | bacteroides |
| 159 | 42 | 45.7 | 436 | 2 | Q9LFV3_ARATH | Q9lfv3 | arabidopsis | 232 | 40 | 43.5 | 652 | 2 | Q6CEU2_YARLI | Q6ceue2 | yarrowia li |
| 160 | 42 | 45.7 | 436 | 2 | Q57OM6_ARATH | Q57om6 | arabidopsis | 233 | 40 | 43.5 | 664 | 2 | Q6P1D1_MOUSE | Q6p1d1 | mus musculus |
| 161 | 42 | 45.7 | 481 | 2 | Q6NCR3_RHOBA | Q6ncr3 | rhodopseudo | 234 | 40 | 43.5 | 705 | 1 | FL01_SCHPO | P50528 | schizosacch |
| 162 | 42 | 45.7 | 523 | 2 | Q8PB24_ECOL6 | Q8pb24 | escherichia | 235 | 40 | 43.5 | 705 | 1 | DREB_MOUSE | Q9qxs6 | mus musculus |
| 163 | 42 | 45.7 | 544 | 2 | Q60B74_METCA | Q60b74 | methylococc | 236 | 40 | 43.5 | 706 | 1 | DREB_MOUSE | Q9qxs6 | mus musculus |
| 164 | 42 | 45.7 | 601 | 1 | EPG_DESVH | Q72ci3 | desulfovibr | 237 | 40 | 43.5 | 745 | 2 | Q8QHJ6_BRARE | Q8qhj6 | brachydanio |
| 165 | 42 | 45.7 | 695 | 2 | Q4T969_TETNG | Q4t969 | tetraodon n | 238 | 40 | 43.5 | 745 | 2 | Q8QHJ6_BRARE | Q8qhj6 | brachydanio |
| 166 | 42 | 45.7 | 757 | 2 | Q8W5V7_9CAUD | Q8w5v7 | bacterioph | 239 | 40 | 43.5 | 769 | 2 | Q8IMN9_BRARE | Q8imn9 | drosofila |
| 167 | 42 | 45.7 | 819 | 2 | Q4JUT8_GIBZE | Q4jut8 | gibberella | 240 | 40 | 43.5 | 788 | 2 | Q8IMN9_BRARE | Q8imn9 | drosofila |
| 168 | 42 | 45.7 | 1106 | 2 | Q8A340_BACTN | Q8a340 | bacteroides | 241 | 40 | 43.5 | 857 | 1 | AKAP1_MOUSE | Q8ayg1 | drosofila |
| 169 | 42 | 45.7 | 2178 | 2 | Q8I643_PLAF7 | Q8i643 | plasmodium | 242 | 40 | 43.5 | 857 | 1 | AKAP1_MOUSE | Q8ayg1 | drosofila |
| 170 | 42 | 45.7 | 2553 | 2 | Q6PUE8_PLAFA | Q6pue8 | plasmodium | 243 | 40 | 43.5 | 868 | 2 | Q4RJV8_TETNG | Q4rjv8 | tetraodon n |
| 171 | 41.5 | 45.1 | 224 | 2 | Q4PUE8_PLAFA | Q4pue8 | plasmodium | 244 | 40 | 43.5 | 1001 | 2 | Q9YX12_DROME | Q9yx12 | drosofila |
| 172 | 41 | 44.6 | 65 | 2 | ANTE_BACSU | Q4iva9 | burkholderi | 245 | 40 | 43.5 | 1010 | 2 | Q7KUY4_DROME | Q7kuy4 | drosofila |
| 173 | 41 | 44.6 | 98 | 1 | ANTE_BACSU | Q5brw2 | schistosoma | 246 | 40 | 43.5 | 1209 | 2 | Q7KUY4_DROME | Q4wnf8 | aspergillus |
| 174 | 41 | 44.6 | 119 | 2 | Q6ZL23_ORYSA | Q7wy63 | bacillus su | 247 | 40 | 43.5 | 1287 | 2 | Q7YU59_DROME | Q7yus9 | drosofila |
| 175 | 41 | 44.6 | 148 | 2 | Q65941_ECOLI | Q6z123 | oryza sativ | 248 | 40 | 43.5 | 1287 | 2 | Q7YU59_DROME | Q9usw1 | drosofila |
| 176 | 41 | 44.6 | 159 | 2 | Q4S878_TETNG | Q4s878 | tetraodon n | 249 | 40 | 43.5 | 1287 | 2 | Q9VL24_DROME | Q9vl24 | drosofila |
| 177 | 41 | 44.6 | 166 | 2 | Q65265_ASF | Q65265 | african swi | 250 | 40 | 43.5 | 1287 | 2 | Q9VL24_DROME | Q9vl24 | drosofila |

| | | | | | | | | | | | | | |
|-----|------|------|------|---|---------------|--------------------|-----|------|------|------|---|---------------|---------------------|
| 251 | 40 | 43.5 | 2703 | 2 | Q9K0T0_NEIMB | Q9K0T0_neisseria m | 324 | 39 | 42.4 | 431 | 2 | Q4QAU4_LEIMA | Q4QAU4_leishmania |
| 252 | 40 | 43.5 | 3954 | 2 | Q6LEV2_PLAPV7 | Q6LEV2_plasmodium | 325 | 39 | 42.4 | 439 | 2 | Q4NVJ0_9DELT | Q4NVJ0_aeromonas |
| 253 | 40 | 43.5 | 4859 | 2 | Q95201_MUSP7 | Q95201_musella vis | 326 | 39 | 42.4 | 444 | 2 | Q21966_CABEL | Q21966_caenorhabdi |
| 254 | 40 | 43.5 | 4859 | 2 | Q7MT29_9CARN | Q7MT29_mustela sp. | 327 | 39 | 42.4 | 446 | 2 | Q61UL2_CABER | Q61UL2_caenorhabdi |
| 255 | 40 | 43.5 | 4869 | 2 | Q90985_CHICK | Q90985_gallus gall | 328 | 39 | 42.4 | 453 | 2 | Q8XJAO_CLOPE | Q8XJAO_clostridium |
| 256 | 40 | 43.5 | 4870 | 1 | RYR3_HUMAN | Q15413_homo sapien | 329 | 39 | 42.4 | 454 | 2 | Q52GR6_MAGGR | Q52GR6_magnaporthe |
| 257 | 40 | 43.5 | 4872 | 2 | Q9TS33_RABIT | Q9TS33_oryctolagus | 330 | 39 | 42.4 | 505 | 1 | BUCC_APLCA | P20481_a buccalin |
| 258 | 39.5 | 42.9 | 159 | 2 | Q7WSQ0_9PROC | Q7WSQ0_uncultured | 331 | 39 | 42.4 | 535 | 2 | Q71LX7_LYCES | Q71LX7_lycopersico |
| 259 | 39.5 | 42.9 | 159 | 2 | Q7WVP9_9PROC | Q7WVP9_uncultured | 332 | 39 | 42.4 | 557 | 2 | Q66842_9URO8 | Q66842_oikopleura |
| 260 | 39.5 | 42.9 | 159 | 2 | Q7WVP5_9PROC | Q7WVP5_uncultured | 333 | 39 | 42.4 | 558 | 2 | Q83NM3_TROW8 | Q83NM3_tropheryma |
| 261 | 39.5 | 42.9 | 159 | 2 | Q7WVP4_9PROC | Q7WVP4_uncultured | 334 | 39 | 42.4 | 589 | 2 | Q7TX53_MYCBO | Q7TX53_mycobacteri |
| 262 | 39.5 | 42.9 | 159 | 2 | Q7WVN7_9PROC | Q7WVN7_uncultured | 335 | 39 | 42.4 | 590 | 2 | Q6MX04_MYCTU | Q6MX04_mycobacteri |
| 263 | 39.5 | 42.9 | 159 | 2 | Q7WVN5_9PROC | Q7WVN5_uncultured | 336 | 39 | 42.4 | 600 | 2 | Q83G97_TROWT | Q83G97_tropheryma |
| 264 | 39.5 | 42.9 | 159 | 2 | Q7WVN2_9PROC | Q7WVN2_uncultured | 337 | 39 | 42.4 | 603 | 2 | Q8VW66_MYCTU | Q8VW66_mycobacteri |
| 265 | 39.5 | 42.9 | 159 | 2 | Q7WVL9_9PROC | Q7WVL9_uncultured | 338 | 39 | 42.4 | 628 | 2 | Q5BSC3_EMENI | Q5BSC3_aspergillus |
| 266 | 39.5 | 42.9 | 159 | 2 | Q7WVL3_9PROC | Q7WVL3_uncultured | 339 | 39 | 42.4 | 691 | 1 | EFQ_WOLPM | Q731x7_wolbachia p |
| 267 | 39.5 | 42.9 | 159 | 2 | Q7WVK9_9PROC | Q7WVK9_uncultured | 340 | 39 | 42.4 | 691 | 1 | Q4W5Y1_DESVU | Q4W5Y1_desulfovib |
| 268 | 39.5 | 42.9 | 159 | 2 | Q7WRK9_9PROC | Q7WRK9_uncultured | 341 | 39 | 42.4 | 710 | 2 | Q9PYM6_GVXN | Q9PYM6_xestia c-ni |
| 269 | 39.5 | 42.9 | 159 | 2 | Q7WS38_9PROC | Q7WS38_uncultured | 342 | 39 | 42.4 | 715 | 2 | Q93VM2_ORYSA | Q93VM2_oryza sativ |
| 270 | 39.5 | 42.9 | 159 | 2 | Q7WRH5_9PROC | Q7WRH5_uncultured | 343 | 39 | 42.4 | 747 | 2 | Q92YQ3_RHIME | Q92YQ3_rhizobium m |
| 271 | 39.5 | 42.9 | 276 | 2 | Q8THK2_METAC | Q8THK2_methanosarc | 344 | 39 | 42.4 | 750 | 2 | Q5AU92_EMENI | Q5AU92_schizosacch |
| 272 | 39.5 | 42.9 | 363 | 2 | Q8TNX1_METAC | Q8TNX1_methanosarc | 345 | 39 | 42.4 | 813 | 1 | EFQ2_SCHPO | Q54429_schizosacch |
| 273 | 39.5 | 42.9 | 647 | 2 | Q9PT10_ONCMY | Q9PT10_oncorhynch | 346 | 39 | 42.4 | 853 | 2 | Q60D13_SOLD | Q60D13_solanum dem |
| 274 | 39.5 | 42.9 | 711 | 2 | Q7X668_ORYSA | Q7X668_oryza sativ | 347 | 39 | 42.4 | 920 | 2 | Q9GRN4_LEIMA | Q9GRN4_leishmania |
| 275 | 39.5 | 42.9 | 711 | 2 | Q7XPX3_ORYSA | Q7XPX3_oryza sativ | 348 | 39 | 42.4 | 957 | 2 | Q41PQ8_GIBZE | Q41PQ8_gibberella |
| 276 | 39.5 | 42.9 | 1564 | 2 | Q6DFB8_XENLA | Q6DFB8_xenopus lae | 349 | 39 | 42.4 | 1175 | 2 | Q13632_HUMAN | Q13632_homo sapien |
| 277 | 39.5 | 42.9 | 1577 | 1 | HLXA_PROMI | P16466_proteus mir | 350 | 39 | 42.4 | 1219 | 2 | Q8W555_HUMAN | Q8W555_homo sapien |
| 278 | 39 | 42.4 | 69 | 2 | Q74NR9_BACC1 | Q74NR9_bacillus ce | 351 | 39 | 42.4 | 1260 | 1 | ALS1_CANAL | P46590_candida alb |
| 279 | 39 | 42.4 | 69 | 2 | Q13044_SCYCA | Q13044_scyllorhinu | 352 | 39 | 42.4 | 1260 | 1 | Q5A8L0_CANAL | Q5A8L0_candida alb |
| 280 | 39 | 42.4 | 86 | 2 | Q7USB5_SYNPX | Q7USB5_synecococc | 353 | 39 | 42.4 | 1260 | 2 | Q5A8T4_CANAL | Q5A8T4_candida alb |
| 281 | 39 | 42.4 | 107 | 2 | Q58937_PYRHO | Q58937_pyrococcus | 354 | 39 | 42.4 | 1279 | 2 | Q6L3L8_SOLD | Q6L3L8_solanum dem |
| 282 | 39 | 42.4 | 114 | 2 | Q9UP43_HUMAN | Q9UP43_homo sapien | 355 | 39 | 42.4 | 1359 | 2 | Q8TB57_HUMAN | Q8TB57_homo sapien |
| 283 | 39 | 42.4 | 125 | 2 | Q524B3_MAGGR | Q524B3_magnaporthe | 356 | 39 | 42.4 | 1372 | 2 | Q87JN6_VIBPA | Q87JN6_vibrio para |
| 284 | 39 | 42.4 | 126 | 2 | Q613E0_CAEBR | Q613E0_caenorhabdi | 357 | 39 | 42.4 | 1372 | 2 | Q81WE9_HUMAN | Q81WE9_homo sapien |
| 285 | 39 | 42.4 | 126 | 2 | Q19685_CAREL | Q19685_caenorhabdi | 358 | 39 | 42.4 | 1385 | 2 | Q9Y4B4_HUMAN | Q9Y4B4_homo sapien |
| 286 | 39 | 42.4 | 130 | 2 | Q520J2_MAGGR | Q520J2_magnaporthe | 359 | 39 | 42.4 | 1427 | 2 | Q14207_HUMAN | Q14207_homo sapien |
| 287 | 39 | 42.4 | 171 | 2 | Q4WAT4_ASFFU | Q4WAT4_aspergillus | 360 | 39 | 42.4 | 1427 | 2 | Q16580_HUMAN | Q16580_homo sapien |
| 288 | 39 | 42.4 | 208 | 2 | Q89KL6_BRAJA | Q89KL6_bradyrhizob | 361 | 39 | 42.4 | 1466 | 2 | Q99NG0_MOUSE | Q99NG0_mus musculu |
| 289 | 39 | 42.4 | 229 | 2 | Q6AQ24_DESPS | Q6AQ24_desulfotale | 362 | 39 | 42.4 | 1515 | 2 | Q4SXJ6_TETNG | Q4SXJ6_tetradodon n |
| 290 | 39 | 42.4 | 233 | 2 | Q9XG55_LORJA | Q9XG55_lotus japon | 363 | 39 | 42.4 | 2029 | 2 | Q41FP4_GIBZE | Q41FP4_gibberella |
| 291 | 39 | 42.4 | 240 | 2 | P89268_GVXN | P89268_xestia c-ni | 364 | 39 | 42.4 | 3206 | 2 | Q7WK28_BORBR | Q7WK28_bordetella |
| 292 | 39 | 42.4 | 245 | 2 | Q8B966_9ROV | Q8B966_avian ortho | 365 | 39 | 42.4 | 3590 | 1 | FXAB_BORPE | P12255_bordetella |
| 293 | 39 | 42.4 | 261 | 2 | Q8L316_AZOVI | Q8L316_azotobacter | 366 | 39 | 42.4 | 3590 | 2 | Q8VV99_BORPE | Q8VV99_bordetella |
| 294 | 39 | 42.4 | 261 | 2 | Q41XW7_AZOVI | Q41XW7_azotobacter | 367 | 39 | 42.4 | 3590 | 2 | Q45365_BORPE | Q45365_bordetella |
| 295 | 39 | 42.4 | 262 | 2 | Q6VIR5_NECWA | Q6VIR5_necturus ma | 368 | 39 | 42.4 | 3592 | 2 | Q7W692_BORPA | Q7W692_bordetella |
| 296 | 39 | 42.4 | 267 | 2 | Q8UBT9_AGR75 | Q8UBT9_agrobacteri | 369 | 39 | 42.4 | 3634 | 2 | Q9JP78_BORBR | Q9JP78_bordetella |
| 297 | 39 | 42.4 | 274 | 2 | Q8W0E7_ORYSA | Q8W0E7_oryza sativ | 370 | 39 | 42.4 | 3652 | 2 | Q7W161_BORBR | Q7W161_bordetella |
| 298 | 39 | 42.4 | 300 | 2 | Q9K0T3_NEIMB | Q9K0T3_neisseria m | 371 | 39 | 42.4 | 4196 | 2 | Q7VW05_BORPE | Q7VW05_bordetella |
| 299 | 39 | 42.4 | 312 | 2 | Q7T7Q6_9ROV | Q7T7Q6_avian ortho | 372 | 39 | 42.4 | 4218 | 2 | Q7W7M5_BORPA | Q7W7M5_bordetella |
| 300 | 39 | 42.4 | 314 | 2 | Q899J6_CLOTE | Q899J6_clostridium | 373 | 39 | 42.4 | 4218 | 2 | Q7WL14_BORBR | Q7WL14_bordetella |
| 301 | 39 | 42.4 | 317 | 2 | Q911E4_9ROV | Q911E4_lymantia d | 374 | 38.5 | 41.8 | 145 | 2 | Q8ET10_MOUSE | Q8ET10_mus musculu |
| 302 | 39 | 42.4 | 318 | 2 | Q4U5R9_9ROV | Q4U5R9_heliobacti | 375 | 38.5 | 41.8 | 159 | 2 | Q7WVL2_9PROC | Q7WVL2_uncultured |
| 303 | 39 | 42.4 | 326 | 1 | SIGC_ARVS1 | Q99212_avian feovi | 376 | 38.5 | 41.8 | 218 | 2 | Q8R2V6_MOUSE | Q8R2V6_mus musculu |
| 304 | 39 | 42.4 | 326 | 2 | Q12287_9ROV | Q12287_avian ortho | 377 | 38.5 | 41.8 | 261 | 2 | Q6YX51_ORYSA | Q6YX51_oryza sativ |
| 305 | 39 | 42.4 | 326 | 2 | Q8QV12_9ROV | Q8QV12_avian feovi | 378 | 38.5 | 41.8 | 555 | 1 | C78AB_ORYSA | Q7Y1V5_oryza sativ |
| 306 | 39 | 42.4 | 326 | 2 | Q8QV13_9ROV | Q8QV13_avian feovi | 379 | 38.5 | 41.8 | 783 | 2 | Q53LJ8_ORYSA | Q53LJ8_oryza sativ |
| 307 | 39 | 42.4 | 326 | 2 | Q8QV17_9ROV | Q8QV17_avian feovi | 380 | 38.5 | 41.8 | 974 | 2 | Q68F88_MOUSE | Q68F88_mus musculu |
| 308 | 39 | 42.4 | 326 | 2 | Q9DPB1_9ROV | Q9DPB1_avian ortho | 381 | 38.5 | 41.8 | 1035 | 2 | Q5NTZ0_BOMMO | Q5NTZ0_bombyx mori |
| 309 | 39 | 42.4 | 326 | 2 | Q9DPB5_9ROV | Q9DPB5_avian ortho | 382 | 38.5 | 41.8 | 1051 | 2 | Q7M4J4_BOMMO | Q7M4J4_bombyx mori |
| 310 | 39 | 42.4 | 326 | 2 | Q91CG7_9ROV | Q91CG7_avian ortho | 383 | 38.5 | 41.8 | 1231 | 2 | Q82276_ARATH | Q82276_arabidopsis |
| 311 | 39 | 42.4 | 326 | 2 | Q91LM3_9ROV | Q91LM3_avian ortho | 384 | 38.5 | 41.8 | 1657 | 2 | Q4QHB6_LEIMA | Q4QHB6_leishmania |
| 312 | 39 | 42.4 | 326 | 2 | Q91LM4_9ROV | Q91LM4_avian ortho | 385 | 38.5 | 41.8 | 2310 | 1 | ABCA4_MOUSE | Q35600_mus musculu |
| 313 | 39 | 42.4 | 326 | 2 | Q91LM5_9ROV | Q91LM5_avian ortho | 386 | 38 | 41.3 | 100 | 2 | Q8CEL8_MOUSE | Q8CEL8_mus musculu |
| 314 | 39 | 42.4 | 326 | 2 | Q91LB6_9ROV | Q91LB6_avian feovi | 387 | 38 | 41.3 | 100 | 2 | Q4SPB9_TETNG | Q4SPB9_tetradodon n |
| 315 | 39 | 42.4 | 326 | 2 | Q51238_ARVS1 | Q51238_avian reovi | 388 | 38 | 41.3 | 119 | 2 | Q5AHC5_CANAL | Q5AHC5_candida alb |
| 316 | 39 | 42.4 | 326 | 2 | Q4U515_9ROV | Q4U515_avian ortho | 389 | 38 | 41.3 | 130 | 2 | Q9T040_ARATH | Q9T040_arabidopsis |
| 317 | 39 | 42.4 | 327 | 2 | Q66637_9GAMA | Q66637_equid herpe | 390 | 38 | 41.3 | 134 | 2 | Q5Q0B1_ARATH | Q5Q0B1_arabidopsis |
| 318 | 39 | 42.4 | 331 | 2 | Q8W0E7_CABEL | Q8W0E7_caenorhabdi | 391 | 38 | 41.3 | 142 | 2 | Q13032_BRACHD | Q13032_brachydanio |
| 319 | 39 | 42.4 | 338 | 2 | Q9C8D5_ARATH | Q9C8D5_arabidopsis | 392 | 38 | 41.3 | 147 | 2 | Q9EUM5_CORGL | Q9EUM5_corynebacte |
| 320 | 39 | 42.4 | 369 | 2 | Q8SUP9_ENCCU | Q8SUP9_encephalito | 393 | 38 | 41.3 | 149 | 2 | Q9LCV3_PARDE | Q9LCV3_paracoccus |
| 321 | 39 | 42.4 | 413 | 2 | Q8BGB4_MOUSE | Q8BGB4_mus muscu | 394 | 38 | 41.3 | 168 | 2 | Q69RM9_ORYSA | Q69RM9_oryza sativ |
| 322 | 39 | 42.4 | 423 | 2 | Q4WYR5_ASPPU | Q4WYR5_aspergillus | 395 | 38 | 41.3 | 184 | 2 | Q6W1B9_RHISN | Q6W1B9_rhizobium s |
| 323 | 39 | 42.4 | 426 | 2 | Q88QW2_PSPFK | Q88QW2_pseudomonas | 396 | 38 | 41.3 | 193 | 2 | Q8BPPY2_MOUSE | Q8BPPY2_mus musculu |

| | | | | | | | | | | | | | |
|-----|----|------|-----|---|---------------|---------------------|-----|------|------|------|---|--------------|---------------------|
| 397 | 38 | 41.3 | 215 | 2 | Q5NQ9_ZYMMO | Q5nqu9 zymomonas m | 470 | 38 | 41.3 | 777 | 2 | Q8IMM1_DROME | Q8imml1 drosophila |
| 398 | 38 | 41.3 | 216 | 2 | Q5INW8_MAGGR | Q5inw8 magnaporthe | 471 | 38 | 41.3 | 785 | 2 | Q5V1X1_HALMA | Q5v1x1 haloarcula |
| 399 | 38 | 41.3 | 230 | 2 | Q6BP30_ORYSA | Q6bp30 oryza sativ | 472 | 38 | 41.3 | 803 | 1 | UBP14_YEAST | UBP14 yeast |
| 400 | 38 | 41.3 | 239 | 2 | Q75GD0_ORYSA | Q75gd0 oryza sativ | 473 | 38 | 41.3 | 808 | 2 | Q3VAU1_DROME | Q3vau1 drosophila |
| 401 | 38 | 41.3 | 244 | 2 | Q8X0R4_NEUCR | Q8x0r4 neurospora | 474 | 38 | 41.3 | 809 | 2 | Q5T232_HUMAN | Q5t232 homo sapien |
| 402 | 38 | 41.3 | 246 | 1 | PSTB_CAMJE | Q9phq1 campylobact | 475 | 38 | 41.3 | 819 | 1 | EFG2_YEAST | Q36777 saccharomyc |
| 403 | 38 | 41.3 | 246 | 2 | Q4HHU4_CAMCO | Q4hhu4 campylobact | 476 | 38 | 41.3 | 819 | 2 | Q8TEB5_HUMAN | Q8tee5 homo sapien |
| 404 | 38 | 41.3 | 246 | 2 | Q4HKD6_CAMLA | Q4hkd6 campylobact | 477 | 38 | 41.3 | 893 | 2 | Q8U9E1_AGR5 | Q8uee1 agrobacteri |
| 405 | 38 | 41.3 | 246 | 2 | Q5HV44_CAMJR | Q5hvf4 campylobact | 478 | 38 | 41.3 | 900 | 2 | Q7CTB1_AGR5 | Q7ctb1 agrobacteri |
| 406 | 38 | 41.3 | 247 | 2 | Q9NXZ6_HUMAN | Q9nxz6 homo sapien | 479 | 38 | 41.3 | 945 | 2 | Q678D6_VIRU | Q678d6 lymphocysti |
| 407 | 38 | 41.3 | 248 | 2 | Q8A260_BACTN | Q8a260 bacteroides | 480 | 38 | 41.3 | 1022 | 2 | Q9LET7_ARATH | Q9let7 arabidopsi |
| 408 | 38 | 41.3 | 248 | 2 | Q9EMG3_AMEPV | Q9emg3 amoeba moo | 481 | 38 | 41.3 | 1030 | 2 | Q7SCH0_NEUCR | Q7sch0 neurospora |
| 409 | 38 | 41.3 | 254 | 2 | Q6ZS66_HUMAN | Q6zse6 homo sapien | 482 | 38 | 41.3 | 1039 | 2 | Q8X014_NEUCR | Q8x014 neurospora |
| 410 | 38 | 41.3 | 257 | 2 | Q7X2P5_SPHEL | Q7x2p5 spingomonas | 483 | 38 | 41.3 | 1046 | 2 | Q6CM67_KULA | Q6cm67 kluyveromyc |
| 411 | 38 | 41.3 | 257 | 2 | Q4S4A8_TETNG | Q4s4a8 tetraodon n | 484 | 38 | 41.3 | 1067 | 2 | Q01419_BOMMO | Q01419 bombyx mori |
| 412 | 38 | 41.3 | 260 | 2 | Q7S793_NEUCR | Q7s793 neurospora | 485 | 38 | 41.3 | 1097 | 2 | Q4IFM6_GIBZE | Q4ifm6 gibberella |
| 413 | 38 | 41.3 | 269 | 2 | Q85135_RHOSH | Q85135 rhodobacter | 486 | 38 | 41.3 | 1124 | 1 | PHYA1_TOBAC | PHYA1 nicotiana t |
| 414 | 38 | 41.3 | 280 | 1 | SOX21_CHICK | Q9w7r5 gallus gall | 487 | 38 | 41.3 | 1125 | 1 | PHYA1_TOBAC | PHYA1 nicotiana t |
| 415 | 38 | 41.3 | 283 | 2 | Q5YWR3_NOCPA | Q5ywr3 nocardia fa | 488 | 38 | 41.3 | 1219 | 2 | Q4RXIS_TETNG | Q4rxis tetraodon n |
| 416 | 38 | 41.3 | 295 | 2 | Q5TNI1_ANOGA | Q5tni1 anopheles g | 489 | 38 | 41.3 | 1223 | 2 | Q5ZAP0_ORYSA | Q5zap0 oryza sativ |
| 417 | 38 | 41.3 | 296 | 2 | Q6H6J4_ORYSA | Q6hej4 oryza sativ | 490 | 38 | 41.3 | 1230 | 2 | Q4UD90_THEAN | Q4ud90 theileria a |
| 418 | 38 | 41.3 | 297 | 2 | Q51RL9_MAGGR | Q51rl9 magnaporthe | 491 | 38 | 41.3 | 1320 | 2 | Q4SMW6_TETNG | Q4smw6 tetraodon n |
| 419 | 38 | 41.3 | 297 | 2 | Q5N8V8_ORYSA | Q5n8v8 oryza sativ | 492 | 38 | 41.3 | 1320 | 2 | Q516W5_ENTHI | Q516w5 entamoeba h |
| 420 | 38 | 41.3 | 299 | 2 | Q8SD39_ENCCU | Q8sd39 encephalito | 493 | 38 | 41.3 | 2151 | 2 | Q8H898_ORYSA | Q8h898 oryza sativ |
| 421 | 38 | 41.3 | 319 | 2 | Q72AD8_LISMP | Q72ad8 listeria mo | 494 | 38 | 41.3 | 2261 | 2 | Q5HCP3_STAAC | Q5hcp3 staphylococ |
| 422 | 38 | 41.3 | 319 | 2 | Q8YA92_LISMP | Q8ya92 listeria mo | 495 | 37.5 | 40.8 | 121 | 2 | Q77653_MACMU | Q77653 macaca mula |
| 423 | 38 | 41.3 | 319 | 2 | Q92F16_LISIN | Q92f16 listeria in | 496 | 37.5 | 40.8 | 159 | 2 | Q7WVN3_PROUC | Q7wvn3 uncultured |
| 424 | 38 | 41.3 | 347 | 2 | Q9HLZ4_THEAC | Q9hlz4 thermoplasma | 497 | 37.5 | 40.8 | 265 | 2 | Q6LXN3_TETMP | Q6lxn3 methanococ |
| 425 | 38 | 41.3 | 347 | 2 | Q92X29_RHIME | Q92x29 rhizobium m | 498 | 37.5 | 40.8 | 289 | 2 | Q4ZX15_PSEES | Q4zx15 pseudomonas |
| 426 | 38 | 41.3 | 353 | 2 | Q8LA09_ARATH | Q8la09 arabidopsis | 499 | 37.5 | 40.8 | 289 | 2 | Q886Y2_PSESM | Q886y2 pseudomonas |
| 427 | 38 | 41.3 | 353 | 2 | Q9LPC7_ARATH | Q9lpc7 arabidopsis | 500 | 37.5 | 40.8 | 302 | 2 | Q5FQJ6_GLUOX | Q5fgj6 gluconobact |
| 428 | 38 | 41.3 | 356 | 1 | PCBP1_HUMAN | Q15365 homo sapien | 501 | 37.5 | 40.8 | 303 | 2 | Q9PML2_PETMA | Q9pml2 petromyzon |
| 429 | 38 | 41.3 | 356 | 1 | PCBP1_MOUSE | P60335 mus musculu | 502 | 37.5 | 40.8 | 563 | 2 | Q57Y26_9TRYP | Q57y26 trypanosoma |
| 430 | 38 | 41.3 | 356 | 1 | PCBP1_RABIT | Q19048 oryctolagus | 503 | 37.5 | 40.8 | 687 | 2 | Q6LDL6_CABRH | Q6ldl6 caenorhabdi |
| 431 | 38 | 41.3 | 356 | 2 | Q53S88_HUMAN | Q53s88 homo sapien | 504 | 37.5 | 40.8 | 687 | 2 | Q9FJ32_ARATH | Q9fj32 arabidopsis |
| 432 | 38 | 41.3 | 356 | 2 | Q5E9A3_BOVIN | Q5e9a3 bos taurus | 505 | 37.5 | 40.8 | 707 | 2 | Q4ATJ4_TETNG | Q4atj4 tetraodon n |
| 433 | 38 | 41.3 | 362 | 1 | CBX8_MOUSE | Q9qrv1 mus musculu | 506 | 37.5 | 40.8 | 728 | 2 | Q6AT76_ORYSA | Q6at76 oryza sativ |
| 434 | 38 | 41.3 | 369 | 1 | VP6_AHSV6 | Q64913 african hor | 507 | 37.5 | 40.8 | 904 | 2 | Q5WMQ4_ORYSA | Q5wmq4 oryza sativ |
| 435 | 38 | 41.3 | 399 | 2 | Q4LH94_9BURK | Q4lh94 burkholderi | 508 | 37.5 | 40.8 | 904 | 2 | Q59666_SCHPO | Q59666 schizosacch |
| 436 | 38 | 41.3 | 405 | 2 | Q6K235_ORYSA | Q6k235 oryza sativ | 509 | 37.5 | 40.8 | 1015 | 2 | Q6D7B7_ERWCT | Q6d7b7 erwinia car |
| 437 | 38 | 41.3 | 414 | 2 | Q4WTA4_ASPFU | Q4wtac4 aspergillus | 510 | 37.5 | 40.8 | 2142 | 2 | Q5FWR3_ARATH | Q5fwr3 arabidopsis |
| 438 | 38 | 41.3 | 427 | 2 | Q9ML45_RHILLO | Q9ml45 rhizobium l | 511 | 37.5 | 40.8 | 4864 | 2 | Q5RGQ4_BRARE | Q5rgq4 brachydanio |
| 439 | 38 | 41.3 | 439 | 2 | Q5B3L4_EMENI | Q5b3l4 aspergillus | 512 | 37 | 40.2 | 30 | 2 | Q53WY7_HUMAN | Q53wy7 homo sapien |
| 440 | 38 | 41.3 | 471 | 2 | Q4TG08_TETNG | Q4tg08 tetraodon n | 513 | 37 | 40.2 | 57 | 2 | Q8XHU1_CLOPE | Q8xhu1 clostridium |
| 441 | 38 | 41.3 | 517 | 1 | FOXN4_HUMAN | Q96nzi homo sapien | 514 | 37 | 40.2 | 68 | 2 | Q8Y1C8_RALSO | Q8y1c8 ralstonia s |
| 442 | 38 | 41.3 | 517 | 2 | Q5VL04_DROME | Q5vl04 drosophila | 515 | 37 | 40.2 | 77 | 2 | Q95J81_HORSE | Q95j81 equus cabal |
| 443 | 38 | 41.3 | 521 | 2 | Q4Q977_LEIMA | Q4q977 leishmania | 516 | 37 | 40.2 | 96 | 2 | Q5ZUE2_LEGPH | Q5zue2 legionella |
| 444 | 38 | 41.3 | 524 | 2 | Q8S220_ORYSA | Q8s220 oryza sativ | 517 | 37 | 40.2 | 96 | 2 | Q6LUC8_PHOPR | Q6luc8 photobacter |
| 445 | 38 | 41.3 | 542 | 2 | Q75SA6_ASHGO | Q75sa6 ashbya goss | 518 | 37 | 40.2 | 100 | 2 | Q5ZUE2_LEGPH | Q5zue2 legionella |
| 446 | 38 | 41.3 | 544 | 2 | Q4NBS7_5MICC | Q4nbs7 arthrobacte | 519 | 37 | 40.2 | 110 | 2 | Q69L15_ORYSA | Q69l15 oryza sativ |
| 447 | 38 | 41.3 | 550 | 2 | Q8IPC4_DROME | Q8ipc4 drosophila | 520 | 37 | 40.2 | 116 | 2 | Q4XV2_CORJK | Q4jxv2 corynebacte |
| 448 | 38 | 41.3 | 550 | 2 | Q9D300_BRARE | Q9d300 brachydanio | 521 | 37 | 40.2 | 120 | 2 | Q5NWZ4_AZOSE | Q5nwz4 azoarcus sp |
| 449 | 38 | 41.3 | 550 | 2 | Q9PT94_BRARE | Q9pt94 brachydanio | 522 | 37 | 40.2 | 123 | 2 | Q864T8_MONDO | Q864t8 monodelphis |
| 450 | 38 | 41.3 | 551 | 2 | Q8IPC3_DROME | Q8ipc3 drosophila | 523 | 37 | 40.2 | 131 | 2 | Q7YWC9_TENMO | Q7ywc9 tenobrio mo |
| 451 | 38 | 41.3 | 555 | 2 | Q4URJ6_THEAN | Q4urf6 theileria a | 524 | 37 | 40.2 | 133 | 2 | Q4I710_GIBZE | Q4i710 gibberella |
| 452 | 38 | 41.3 | 556 | 2 | Q9C2M0_NEUCR | Q9c2m0 neurospora | 525 | 37 | 40.2 | 137 | 2 | Q69775_RHLET | Q69775 rhizobium e |
| 453 | 38 | 41.3 | 557 | 2 | Q7Q553_ANOGA | Q7q553 anopheles g | 526 | 37 | 40.2 | 138 | 2 | Q9YF84_AERPE | Q9yf84 aeropyrum p |
| 454 | 38 | 41.3 | 559 | 2 | Q9AP81_9PSED | Q9ap81 pseudomonas | 527 | 37 | 40.2 | 145 | 2 | Q87GP8_VIBPA | Q87gp8 vibrio para |
| 455 | 38 | 41.3 | 563 | 1 | HNMI_YEAST | P19807 saccharomyc | 528 | 37 | 40.2 | 146 | 2 | Q6LXZ1_SOLDE | Q6l321 solanum dem |
| 456 | 38 | 41.3 | 571 | 2 | Q5JWA3_ORYSA | Q5jwa3 oryza sativ | 529 | 37 | 40.2 | 149 | 2 | Q5EP97_NEIGO | Q5ep97 neisseria g |
| 457 | 38 | 41.3 | 579 | 2 | Q615U3_ORYSA | Q6i5u3 oryza sativ | 530 | 37 | 40.2 | 151 | 2 | Q6BL90_DEBHA | Q6bl90 debaryomyce |
| 458 | 38 | 41.3 | 591 | 2 | Q753P7_ASHGO | Q753p7 ashbya goss | 531 | 37 | 40.2 | 153 | 2 | Q52AB7_MAGGR | Q52ab7 magnaporthe |
| 459 | 38 | 41.3 | 597 | 2 | Q4I8N7_GIBZE | Q4i8n7 gibberella | 532 | 37 | 40.2 | 155 | 2 | Q755Z1_ASHGO | Q755z1 ashbya goss |
| 460 | 38 | 41.3 | 613 | 2 | Q4QDB7_LEIMA | Q4qdb7 leishmania | 533 | 37 | 40.2 | 155 | 2 | Q9R1G1_RAT | Q9r1g1 rattus norv |
| 461 | 38 | 41.3 | 639 | 2 | Q8IPC5_DROME | Q8ipc5 drosophila | 534 | 37 | 40.2 | 157 | 2 | Q5M19_ORYSA | Q5m19 oryza sativ |
| 462 | 38 | 41.3 | 639 | 2 | Q8SYF0_DROME | Q8syf0 drosophila | 535 | 37 | 40.2 | 161 | 2 | Q6LCX4_PIG | Q6lcx4 sus scrofa |
| 463 | 38 | 41.3 | 683 | 1 | EFG1_TREDE | Q8svf0 drosophila | 536 | 37 | 40.2 | 162 | 2 | Q7PX88_ANOGA | Q7px88 anopheles g |
| 464 | 38 | 41.3 | 683 | 1 | EFG2_TREPA | Q73r08 treponema d | 537 | 37 | 40.2 | 164 | 2 | Q9PEF9_XYLFA | Q9pef9 xyloella fas |
| 465 | 38 | 41.3 | 690 | 1 | EFG_ANAPM | Q83464 treponema p | 538 | 37 | 40.2 | 168 | 2 | Q9D382_MOUSE | Q9d382 mus musculu |
| 466 | 38 | 41.3 | 720 | 2 | Q8PSM7_METWA | Q5pbh2 anaplasma m | 539 | 37 | 40.2 | 175 | 2 | Q6ZVA0_HUMAN | Q6zva0 homo sapien |
| 467 | 38 | 41.3 | 725 | 2 | Q4IRU0_GIBZE | Q8pm7 methanosarc | 540 | 37 | 40.2 | 186 | 2 | Q8HZB2_9PRIM | Q8hzb2 gorilla gor |
| 468 | 38 | 41.3 | 735 | 2 | Q9W3N8_DROME | Q4iru0 gibberella | 541 | 37 | 40.2 | 187 | 1 | EM11_YEAST | Q04406 saccharomyc |
| 469 | 38 | 41.3 | 740 | 2 | Q96MT1_HUMAN | Q9w3n8 drosophila | 542 | 37 | 40.2 | 191 | 2 | Q5PEM4_XENTR | Q5ppm4 xenopus tro |

| | | | | | | | | | | | | | |
|-----|----|------|-----|---|--------------|---------------------|-----|----|------|-----|---|--------------|---------------------|
| 543 | 37 | 40.2 | 202 | 2 | Q9ETD1_STRCO | Q9etd1 streptomyce | 616 | 37 | 40.2 | 403 | 2 | Q4SPX0_TETNG | Q4spx0 tetraodon n |
| 544 | 37 | 40.2 | 207 | 2 | Q4QUO0_XANCP | Q4qu00 xanthomonas | 617 | 37 | 40.2 | 408 | 2 | Q9D3Y6_MOUSE | Q9d3y6 mus musculus |
| 545 | 37 | 40.2 | 207 | 2 | Q8PCN0_XANCP | Q8pcn0 xanthomonas | 618 | 37 | 40.2 | 413 | 2 | Q4R3R4_MACFA | Q4r3r4 macaca fasc |
| 546 | 37 | 40.2 | 207 | 2 | Q8PPD9_XANAC | Q8ppd9 xanthomonas | 619 | 37 | 40.2 | 416 | 2 | Q8G913_9SPHN | Q8g913 sphingomona |
| 547 | 37 | 40.2 | 213 | 2 | Q9LNE1_ARATH | Q9lne1 arabidopsis | 620 | 37 | 40.2 | 421 | 2 | Q8GT90_PRUPE | Q8gt90 prunus pers |
| 548 | 37 | 40.2 | 215 | 2 | Q9QK8_STRCO | Q9qk8 streptomyce | 621 | 37 | 40.2 | 427 | 2 | Q6XQD8_9CAUD | Q6xqd8 enterobacte |
| 549 | 37 | 40.2 | 218 | 2 | Q7YT12_RHOPR | Q7yt12 rhodnius pr | 622 | 37 | 40.2 | 431 | 2 | Q5ZJP3_CHICK | Q5zjp3 gallus gall |
| 550 | 37 | 40.2 | 235 | 2 | Q9UZ11_CABEL | Q9uz11 caenorhabdi | 623 | 37 | 40.2 | 434 | 2 | Q56XT1_ARATH | Q56xt1 arabidopsis |
| 551 | 37 | 40.2 | 238 | 1 | MINC_CANBF | Q7vqz1 candidatus | 624 | 37 | 40.2 | 442 | 2 | Q758Q5_ASHGO | Q758q5 ashbya goss |
| 552 | 37 | 40.2 | 239 | 2 | Q6UC92_MELGA | Q6uc92 meleagris g | 625 | 37 | 40.2 | 450 | 2 | Q7UUP7_RHOB | Q7uup7 rhodopirell |
| 553 | 37 | 40.2 | 241 | 2 | Q8EJR6_SHEON | Q8ejr6 shewanella | 626 | 37 | 40.2 | 465 | 2 | Q6H3Z1_ORYSA | Q6h3z1 oryza sativ |
| 554 | 37 | 40.2 | 247 | 1 | TRI40_RAT | Q8mfy8 rattus norv | 627 | 37 | 40.2 | 467 | 2 | Q6K5K9_ORYSA | Q6k5k9 oryza sativ |
| 555 | 37 | 40.2 | 248 | 2 | Q4I266_GIBZE | Q4i266 gibberella | 628 | 37 | 40.2 | 468 | 1 | STE11_SCHPO | P36631 schizosacch |
| 556 | 37 | 40.2 | 254 | 2 | Q5NTN0_9BACT | Q5ntn0 uncultured | 629 | 37 | 40.2 | 486 | 2 | Q7R4M1_GIALA | Q7r4m1 giardia lam |
| 557 | 37 | 40.2 | 257 | 1 | CR010_HUMAN | Q6ncl5 homo sapien | 630 | 37 | 40.2 | 491 | 2 | Q5CYK6_CRYPV | Q5cyk6 cryptospori |
| 558 | 37 | 40.2 | 257 | 2 | Q6VAX1_ANOGA | Q6vax1 anopheles g | 631 | 37 | 40.2 | 495 | 2 | Q59HF0_HUMAN | Q59hf0 homo sapien |
| 559 | 37 | 40.2 | 257 | 2 | Q6VAX3_ANOGA | Q6vax3 anopheles g | 632 | 37 | 40.2 | 496 | 2 | Q6RXW9_9DIPT | Q6rxw9 anopheles p |
| 560 | 37 | 40.2 | 257 | 2 | Q6VAX4_ANOGA | Q6vax4 anopheles g | 633 | 37 | 40.2 | 496 | 2 | Q4NRN3_9DELT | Q4nrn3 anaeronyxob |
| 561 | 37 | 40.2 | 260 | 1 | BMBE1_HUMAN | Q13145 homo sapien | 634 | 37 | 40.2 | 502 | 2 | Q5Z3P3_MAGGR | Q5z3p3 magnaporthe |
| 562 | 37 | 40.2 | 260 | 2 | Q53G66_HUMAN | Q53g66 homo sapien | 635 | 37 | 40.2 | 502 | 2 | Q4S499_TETNG | Q4s499 tetraodon n |
| 563 | 37 | 40.2 | 260 | 2 | Q8UD87_AGR75 | Q8ud87 agrobacteri | 636 | 37 | 40.2 | 505 | 2 | Q5F6J9_NEIG1 | Q5f6j9 neisseria g |
| 564 | 37 | 40.2 | 262 | 2 | Q9WH90_HHV8 | Q9wh90 human herpe | 637 | 37 | 40.2 | 508 | 2 | Q7DDQ5_NEIMB | Q7ddq5 neisseria m |
| 565 | 37 | 40.2 | 267 | 1 | COLI_HUMAN | P01189 h corticotr | 638 | 37 | 40.2 | 511 | 2 | Q9JR87_NEIMA | Q9jr87 neisseria m |
| 566 | 37 | 40.2 | 267 | 2 | Q5TZZ7_HUMAN | Q5tzz7 homo sapien | 639 | 37 | 40.2 | 511 | 2 | Q5AS84_EMENI | Q5as84 aspergillus |
| 567 | 37 | 40.2 | 267 | 2 | Q6FHC8_HUMAN | Q6fnc8 homo sapien | 640 | 37 | 40.2 | 512 | 2 | Q8MRJ5_DROME | Q8mrj5 drosophila |
| 568 | 37 | 40.2 | 267 | 2 | Q53T23_HUMAN | Q53t23 homo sapien | 641 | 37 | 40.2 | 512 | 2 | Q8BGV4_MOUSE | Q8bgv4 m mus muscu |
| 569 | 37 | 40.2 | 269 | 2 | Q7XVH5_ORYSA | Q7xvh5 oryza sativ | 642 | 37 | 40.2 | 512 | 2 | Q8VE31_MOUSE | Q8ve31 mus musculus |
| 570 | 37 | 40.2 | 274 | 2 | Q4J109_AZOFI | Q4j109 azotobacter | 643 | 37 | 40.2 | 513 | 2 | Q4MY42_BACCE | Q4my42 bacillus ce |
| 571 | 37 | 40.2 | 275 | 2 | Q6AQ9S_DESPS | Q6aq9s deulfotale | 644 | 37 | 40.2 | 513 | 2 | Q6HFU3_BACHK | Q6hfu3 bacillus th |
| 572 | 37 | 40.2 | 275 | 2 | Q7M9A2_WOJSU | Q7m9a2 wolinnella s | 645 | 37 | 40.2 | 513 | 2 | Q8I1A4_BACCR | Q8i1a4 bacillus ce |
| 573 | 37 | 40.2 | 279 | 2 | Q71ME9_DICLA | Q71me9 dicentrarch | 646 | 37 | 40.2 | 513 | 2 | Q8IYJ4_BACAN | Q8iyj4 bacillus an |
| 574 | 37 | 40.2 | 281 | 2 | Q4HNI1_CAMCO | Q4hni1 campylobact | 647 | 37 | 40.2 | 514 | 2 | Q4VBX1_MOUSE | Q4vbx1 mus musculus |
| 575 | 37 | 40.2 | 281 | 2 | Q4HKB9_CAMLA | Q4hkb9 campylobact | 648 | 37 | 40.2 | 528 | 2 | Q6I4K1_HUMAN | Q6i4k1 homo sapien |
| 576 | 37 | 40.2 | 281 | 2 | Q4HRK1_CAMUP | Q4hrk1 campylobact | 649 | 37 | 40.2 | 528 | 2 | Q6J4K1_HUMAN | Q6j4k1 gibberella |
| 577 | 37 | 40.2 | 281 | 2 | Q5PHX7_CAMJE | Q5phx7 campylobact | 650 | 37 | 40.2 | 531 | 2 | Q6INH9_XENLA | Q6inh9 xenopus lae |
| 578 | 37 | 40.2 | 281 | 2 | Q5HVM9_CAMJR | Q5hvm9 campylobact | 651 | 37 | 40.2 | 533 | 2 | Q9AQ54_BACME | Q9aq54 bacillus me |
| 579 | 37 | 40.2 | 282 | 2 | Q6MDV8_PARUW | Q6mdv8 parachlamyd | 652 | 37 | 40.2 | 537 | 2 | Q8BNA7_MOUSE | Q8bna7 mus musculus |
| 580 | 37 | 40.2 | 284 | 2 | Q8MLV8_DROME | Q8mlv8 drosophila | 653 | 37 | 40.2 | 543 | 2 | Q949X8_ARATH | Q949x8 arabidopsis |
| 581 | 37 | 40.2 | 285 | 2 | Q42RX2_PSESY | Q42rx2 pseudomonas | 654 | 37 | 40.2 | 551 | 2 | Q55347_9VIRU | Q55347 bermajo vir |
| 582 | 37 | 40.2 | 286 | 1 | KORB_METTH | Q27113 methanobact | 655 | 37 | 40.2 | 564 | 2 | Q5CTZ7_CRYPV | Q5ctz7 cryptospori |
| 583 | 37 | 40.2 | 287 | 2 | Q9VJ58_DROME | Q9vj58 drosophila | 656 | 37 | 40.2 | 570 | 2 | Q7BJ43_ANOGA | Q7bj43 anopheles g |
| 584 | 37 | 40.2 | 287 | 2 | Q5UL40_DROME | Q5ul40 drosophila | 657 | 37 | 40.2 | 575 | 2 | Q9HKB5_THEAC | Q9hkb5 thermoplasma |
| 585 | 37 | 40.2 | 288 | 2 | Q7NKG4_GLOVI | Q7nkg4 gloeobacter | 658 | 37 | 40.2 | 579 | 2 | Q51X68_MAGGR | Q51x68 magnaporthe |
| 586 | 37 | 40.2 | 292 | 2 | Q5AWT3_EMENI | Q5awt3 aspergillus | 659 | 37 | 40.2 | 581 | 1 | LRTM3_HUMAN | Q86vh5 homo sapien |
| 587 | 37 | 40.2 | 299 | 2 | Q4SLP2_TETNG | Q4slp2 tetraodon n | 660 | 37 | 40.2 | 581 | 1 | LRTM3_MACFA | Q8b3p6 macaca fasc |
| 588 | 37 | 40.2 | 300 | 2 | Q4KN59_HUMAN | Q4kn59 homo sapien | 661 | 37 | 40.2 | 582 | 1 | LRTM3_MOUSE | Q8bz81 mus musculus |
| 589 | 37 | 40.2 | 300 | 2 | Q5RBT9_PONPY | Q5rbt9 pongo pygma | 662 | 37 | 40.2 | 582 | 2 | Q8EZA0_MOUSE | Q8beza0 mus musculu |
| 590 | 37 | 40.2 | 303 | 2 | Q9PAK5_XILFA | Q9pak5 xyella fas | 663 | 37 | 40.2 | 584 | 2 | Q4IA69_GIBZE | Q4ia69 gibberella |
| 591 | 37 | 40.2 | 306 | 2 | Q5GQW4_9CAUD | Q5gqw4 bacterioph | 664 | 37 | 40.2 | 584 | 2 | Q6J4K2_HUMAN | Q6j4k2 homo sapien |
| 592 | 37 | 40.2 | 307 | 2 | Q52960_RHIME | Q52960 rhizobium m | 665 | 37 | 40.2 | 585 | 2 | Q4KMS9_HUMAN | Q4kms9 homo sapien |
| 593 | 37 | 40.2 | 317 | 2 | Q7UU28_RHOB | Q7uu28 rhodopirell | 666 | 37 | 40.2 | 585 | 2 | Q925Q3_MOUSE | Q925q3 mus musculus |
| 594 | 37 | 40.2 | 317 | 2 | Q7VEM5_MYCBO | Q7vem5 mycobacteri | 667 | 37 | 40.2 | 585 | 2 | Q6AXS0_RAT | Q6axs0 rattus norv |
| 595 | 37 | 40.2 | 317 | 2 | Q53537_MYCTU | Q53537 mycobacteri | 668 | 37 | 40.2 | 589 | 2 | Q9JUD9_NEIMA | Q9jud9 neisseria m |
| 596 | 37 | 40.2 | 319 | 2 | Q4LQ8_9BURK | Q4lq8 burkholderi | 669 | 37 | 40.2 | 589 | 2 | Q9JS33_NEIMB | Q9js33 neisseria m |
| 597 | 37 | 40.2 | 319 | 2 | Q4MVG8_BACCE | Q4mvg8 bacillus ce | 670 | 37 | 40.2 | 591 | 2 | Q4LLQ2_9BURK | Q4llq2 burkholderi |
| 598 | 37 | 40.2 | 319 | 2 | Q816S2_BACCR | Q816s2 bacillus ce | 671 | 37 | 40.2 | 591 | 2 | Q4KQ06_PSEF5 | Q4kq06 pseudomonas |
| 599 | 37 | 40.2 | 319 | 2 | Q72YX8_BACC1 | Q72yx8 bacillus ce | 672 | 37 | 40.2 | 594 | 2 | Q63UZ2_BURPS | Q63uz2 burkholderi |
| 600 | 37 | 40.2 | 319 | 2 | Q81KJ6_BACAN | Q81kj6 bacillus an | 673 | 37 | 40.2 | 594 | 2 | Q92TV7_RHIME | Q92tv7 rhizobium m |
| 601 | 37 | 40.2 | 319 | 2 | Q6HCD3_BACHK | Q6hcd3 bacillus th | 674 | 37 | 40.2 | 596 | 1 | HMEN_ANOGA | Q02491 anopheles g |
| 602 | 37 | 40.2 | 319 | 2 | Q63ZU3_BACCC | Q63zu3 bacillus ce | 675 | 37 | 40.2 | 596 | 2 | Q89QG2_BRAJA | Q89qg2 bradyrhizob |
| 603 | 37 | 40.2 | 323 | 2 | Q56B05_TREHY | Q56b05 treponema h | 676 | 37 | 40.2 | 597 | 2 | Q95LG7_CANFA | Q95lg7 canis fami |
| 604 | 37 | 40.2 | 329 | 2 | Q57Y13_9TRYP | Q57y13 trypanosoma | 677 | 37 | 40.2 | 598 | 2 | Q5Z5K6_ORYSA | Q5z5k6 oryza sativ |
| 605 | 37 | 40.2 | 339 | 2 | Q6XB22_ACIBA | Q6xb22 acinetobact | 678 | 37 | 40.2 | 598 | 2 | Q6ES92_ORYSA | Q6es92 oryza sativ |
| 606 | 37 | 40.2 | 349 | 2 | Q9XXM4_CABEL | Q9xxm4 caenorhabdi | 679 | 37 | 40.2 | 614 | 2 | Q5CKU6_CRYHO | Q5cku6 cryptospori |
| 607 | 37 | 40.2 | 351 | 2 | Q5WNW0_AZOSE | Q5wnw0 azoarcus sp | 680 | 37 | 40.2 | 620 | 2 | Q5CI25_CRYHO | Q5ci25 cryptospori |
| 608 | 37 | 40.2 | 360 | 2 | Q8MQU3_PARLI | Q8mqu3 paracentrot | 681 | 37 | 40.2 | 621 | 2 | Q5KGY3_CRYNE | Q5kgy3 cryptococcu |
| 609 | 37 | 40.2 | 361 | 2 | Q9C6M5_ARATH | Q9c6m5 arabidopsis | 682 | 37 | 40.2 | 621 | 2 | Q5SSJ4_CRYNE | Q5ssj4 cryptococcu |
| 610 | 37 | 40.2 | 361 | 2 | Q4KKZ3_MOUSE | Q4kkz3 mus musculus | 683 | 37 | 40.2 | 624 | 2 | Q94487_SCHPO | Q94487 schizosacch |
| 611 | 37 | 40.2 | 373 | 2 | Q82389_ARATH | Q82389 arabidopsis | 684 | 37 | 40.2 | 626 | 2 | Q8N631_HUMAN | Q8n631 homo sapien |
| 612 | 37 | 40.2 | 376 | 2 | Q9RU26_DEIRA | Q9ru26 deinococcus | 685 | 37 | 40.2 | 627 | 1 | S13A4_HUMAN | Q9ukg4 homo sapien |
| 613 | 37 | 40.2 | 379 | 2 | Q9SJF9_MOUSE | Q9sjf9 mus musculus | 686 | 37 | 40.2 | 641 | 2 | Q82P23_STRAW | Q82p23 streptomyce |
| 614 | 37 | 40.2 | 389 | 2 | Q9H618_HUMAN | Q9h618 homo sapien | 687 | 37 | 40.2 | 648 | 2 | Q5V0N4_HALMA | Q5v0n4 haloarcula |
| 615 | 37 | 40.2 | 399 | 2 | Q64QU0_BACFR | Q64qu0 bacteroides | 688 | 37 | 40.2 | 679 | 2 | Q5FPX3_CANTR | Q5fp3 candida tro |

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|-----|----|------|------|---|--------------|---------------------|-----|------|------|------|---|---------------|---------------------|
| 689 | 37 | 40.2 | 679 | 2 | Q6GT17_CANTR | Q66T17 candida tro | 762 | 36.5 | 39.7 | 68 | 2 | Q8EHA6_SHEON | Q8Eha6 shewanella |
| 690 | 37 | 40.2 | 680 | 2 | Q7Q177_ANOGA | Q7q177 anopheles g | 763 | 36.5 | 39.7 | 93 | 2 | Q7ZPU7_9HIV1 | Q7zpu7 human immun |
| 691 | 37 | 40.2 | 687 | 2 | Q8BRF4_MOUSE | Q8brf4 mus musculus | 764 | 36.5 | 39.7 | 131 | 2 | Q9MFW4_9HIV1 | Q9wfv4 human immun |
| 692 | 37 | 40.2 | 695 | 2 | Q5TX14_ANOGA | Q5tx14 anopheles g | 765 | 36.5 | 39.7 | 140 | 1 | L1YSA_DROME | P83971 drosophila |
| 693 | 37 | 40.2 | 701 | 1 | EFG1_BDEBA | Q6mj13 dbellovibri | 766 | 36.5 | 39.7 | 140 | 1 | L1YSD_DROME | P83972 drosophila |
| 694 | 37 | 40.2 | 726 | 2 | Q5XDK4_STRP6 | Q5xdk4 streptococc | 767 | 36.5 | 39.7 | 148 | 2 | Q6R7B2_9HERP | Q6r7b2 ostreid her |
| 695 | 37 | 40.2 | 726 | 2 | Q8K8G3_STRP3 | Q8k8g3 streptococc | 768 | 36.5 | 39.7 | 159 | 2 | Q7WVQ6_9PROC | Q7wvq6 uncultured |
| 696 | 37 | 40.2 | 726 | 2 | Q8R295_STRP8 | Q8r295 streptococc | 769 | 36.5 | 39.7 | 159 | 2 | Q7WVQ5_9PROC | Q7wvq5 uncultured |
| 697 | 37 | 40.2 | 726 | 2 | Q9A175_STRPY | Q9a175 streptococc | 770 | 36.5 | 39.7 | 159 | 2 | Q7WVQ4_9PROC | Q7wvq4 uncultured |
| 698 | 37 | 40.2 | 748 | 2 | Q4H3H8_CIOIN | Q4h3h8 ciona intes | 771 | 36.5 | 39.7 | 159 | 2 | Q7WVQ3_9PROC | Q7wvq3 uncultured |
| 699 | 37 | 40.2 | 762 | 2 | Q4SIL4_TETNG | Q4sil4 tetraodon n | 772 | 36.5 | 39.7 | 159 | 2 | Q7WVN6_9PROC | Q7wvn6 uncultured |
| 700 | 37 | 40.2 | 774 | 2 | Q7SBS3_NEUCR | Q7sbs3 neurospora | 773 | 36.5 | 39.7 | 159 | 2 | Q7WVN3_9PROC | Q7wvn3 uncultured |
| 701 | 37 | 40.2 | 776 | 2 | Q8O963_ARATH | Q8o963 arabidopsis | 774 | 36.5 | 39.7 | 159 | 2 | Q7WVN2_9PROC | Q7wvn2 uncultured |
| 702 | 37 | 40.2 | 781 | 2 | Q7QCM0_ANOGA | Q7qcm0 anopheles g | 775 | 36.5 | 39.7 | 159 | 2 | Q7WVM1_9PROC | Q7wvm1 uncultured |
| 703 | 37 | 40.2 | 783 | 2 | Q94B7R_ARATH | Q94br7 arabidopsis | 776 | 36.5 | 39.7 | 159 | 2 | Q7WVL6_9PROC | Q7wvl6 uncultured |
| 704 | 37 | 40.2 | 783 | 2 | Q9S175_ARATH | Q9s175 arabidopsis | 777 | 36.5 | 39.7 | 168 | 2 | Q6YQ78_ONYPE | Q6yq78 onion yello |
| 705 | 37 | 40.2 | 788 | 1 | EFGC_SOYBN | Q6f1g2 candida gla | 778 | 36.5 | 39.7 | 197 | 2 | Q6ZVZ6_HUMAN | Q6zvz6 homo sapien |
| 706 | 37 | 40.2 | 807 | 2 | Q6FLG2_CANGA | Q6flg2 thermus max | 779 | 36.5 | 39.7 | 253 | 2 | Q7WBL3_BORPA | Q7wbl3 bordetella |
| 707 | 37 | 40.2 | 811 | 1 | MUTS_THEAQ | Q56215 thermus aqu | 780 | 36.5 | 39.7 | 315 | 2 | Q9F696_BARBA | Q9fy67 arabidopsis |
| 708 | 37 | 40.2 | 811 | 1 | MUTS_THET2 | Q61671 thermus the | 781 | 36.5 | 39.7 | 409 | 2 | Q8GY67_ARATH | Q8gy67 arabidopsis |
| 709 | 37 | 40.2 | 817 | 1 | MUTS_THECA | Q56239 thermus the | 782 | 36.5 | 39.7 | 424 | 2 | Q9LR24_ARATH | Q9lr24 arabidopsis |
| 710 | 37 | 40.2 | 818 | 1 | MUTS_THET8 | Q56239 thermus the | 783 | 36.5 | 39.7 | 466 | 2 | Q98HE2_RHILN | Q98he2 rhizobium l |
| 711 | 37 | 40.2 | 839 | 2 | Q6O6V3_METCA | Q89kq1 bradyrhizob | 784 | 36.5 | 39.7 | 468 | 2 | Q8AAM8_BACTN | Q8aam8 bacteroides |
| 712 | 37 | 40.2 | 844 | 2 | Q89KQ1_BRAJA | Q89kq1 bradyrhizob | 785 | 36.5 | 39.7 | 500 | 2 | Q6H1N9_9HIV1 | Q6hin9 human immun |
| 713 | 37 | 40.2 | 854 | 1 | AKAP1_RAT | Q88884 r a kinase | 786 | 36.5 | 39.7 | 534 | 2 | Q4ICL6_GIBZE | Q4ic16 gibberella |
| 714 | 37 | 40.2 | 869 | 2 | Q8C4I8_MOUSE | Q8c4i8 mus musculus | 787 | 36.5 | 39.7 | 651 | 2 | Q4NSA3_9DELT | Q4nsa3 anaeromyxob |
| 715 | 37 | 40.2 | 876 | 2 | Q4Q4D8_LEIMA | Q4q4d8 leishmania | 788 | 36.5 | 39.7 | 729 | 2 | Q8UD39_AGRFT5 | Q8ud39 agrobacteri |
| 716 | 37 | 40.2 | 902 | 2 | Q6CEZ5_YARLI | Q6cezs yarrowia li | 789 | 36.5 | 39.7 | 822 | 2 | Q53LL1_ORYSA | Q53ll1 oryza sativ |
| 717 | 37 | 40.2 | 915 | 2 | Q99ME3_MOUSE | Q99me3 mus musculus | 790 | 36.5 | 39.7 | 1014 | 2 | Q6BT63_DBBHA | Q6bt63 debaryomyce |
| 718 | 37 | 40.2 | 930 | 2 | Q8IHH1_DROME | Q8ihh1 drosophila | 791 | 36.5 | 39.7 | 1510 | 2 | Q8PHK6_XANAC | Q8phk6 xanthomonas |
| 719 | 37 | 40.2 | 931 | 2 | Q9VP92_DROME | Q9vf92 drosophila | 792 | 36.5 | 39.7 | 1747 | 2 | Q57U50_9TRYP | Q57u50 trypanosoma |
| 720 | 37 | 40.2 | 936 | 1 | MSHA_HUMAN | Q15457 homo sapien | 793 | 36 | 39.1 | 41 | 2 | Q7PD24_GIALA | Q7pd24 giardia lam |
| 721 | 37 | 40.2 | 936 | 1 | RPOP_CIAPU | P22372 claviceps p | 794 | 36 | 39.1 | 48 | 2 | Q95ML1_ATEBE | Q95ml1 ateles belz |
| 722 | 37 | 40.2 | 936 | 2 | Q5VVS4_HUMAN | Q5vvs4 homo sapien | 795 | 36 | 39.1 | 57 | 2 | Q7EBJ6_CLOAB | Q7ebj6 clostridium |
| 723 | 37 | 40.2 | 965 | 2 | Q4KMM4_MOUSE | Q4kmm4 mus musculus | 796 | 36 | 39.1 | 62 | 2 | Q6WGN5_CVHSA | Q6wgn5 sars corona |
| 724 | 37 | 40.2 | 1005 | 2 | Q7PT05_ANOGA | Q7pt05 anopheles g | 797 | 36 | 39.1 | 69 | 2 | Q7XB64_ORYZA | Q7xb64 oryza sativ |
| 725 | 37 | 40.2 | 1048 | 2 | Q5SML4_ORYSA | Q5sm14 oryza sativ | 798 | 36 | 39.1 | 100 | 2 | Q4KZM1_9HIV1 | Q4kzm1 human immun |
| 726 | 37 | 40.2 | 1075 | 1 | NFAC3_HUMAN | Q12968 homo sapien | 799 | 36 | 39.1 | 100 | 2 | Q4KZM2_9HIV1 | Q4kzm2 human immun |
| 727 | 37 | 40.2 | 1100 | 2 | Q6CKZ5_KJULA | Q6ckz5 kluyveromyc | 800 | 36 | 39.1 | 104 | 2 | Q8CF33_MOUSE | Q8cf33 mus musculus |
| 728 | 37 | 40.2 | 1113 | 2 | Q7PNE2_ANOGA | Q7pne2 anopheles g | 801 | 36 | 39.1 | 107 | 2 | Q12023_YEAST | Q12023 saccharomyc |
| 729 | 37 | 40.2 | 1123 | 2 | Q6V7X2_OROMI | Q6v7x2 orobandhe m | 802 | 36 | 39.1 | 118 | 2 | Q9Y3V0_HUMAN | Q9y3v0 homo sapien |
| 730 | 37 | 40.2 | 1128 | 2 | Q51N14_MAGGR | Q51n14 magnaporthie | 803 | 36 | 39.1 | 136 | 2 | Q5MA01_TOBAC | Q5ma01 nicotiana t |
| 731 | 37 | 40.2 | 1128 | 2 | P79271_PIG | Q79271 sus scrofa | 804 | 36 | 39.1 | 139 | 2 | Q7VIZ3_HBLHP | Q7v1z3 helicobacte |
| 732 | 37 | 40.2 | 1190 | 2 | Q68SS4_9AGAR | Q68ss4 pleurotus d | 805 | 36 | 39.1 | 145 | 2 | Q6OSCI_CAEER | Q6osc1 caenorhabdi |
| 733 | 37 | 40.2 | 1247 | 1 | NOS_ANOST | Q61608 anopheles s | 806 | 36 | 39.1 | 147 | 1 | REV_SIVAI | Q02839 simian immu |
| 734 | 37 | 40.2 | 1259 | 2 | Q9W061_DROME | Q9w061 drosophila | 807 | 36 | 39.1 | 147 | 2 | Q4XJ39_PLACH | Q4xxj9 plasmodium |
| 735 | 37 | 40.2 | 1261 | 2 | Q96685_DROME | Q96685 drosophila | 808 | 36 | 39.1 | 149 | 2 | Q7N7V0_PHOLL | Q7n7v0 photorhabdu |
| 736 | 37 | 40.2 | 1280 | 2 | Q95RC8_DROME | Q95rc8 drosophila | 809 | 36 | 39.1 | 151 | 1 | LECT2_BOVIN | Q62644 bos taurus |
| 737 | 37 | 40.2 | 1379 | 2 | Q5WRU3_CAEEL | Q5wru3 caenorhabdi | 810 | 36 | 39.1 | 164 | 2 | Q34331_BACSU | Q34331 bacillus su |
| 738 | 37 | 40.2 | 1390 | 2 | Q4KPH4_9VIRU | Q4kph4 bacterioph | 811 | 36 | 39.1 | 173 | 2 | Q5TG84_HUMAN | Q5tg84 homo sapien |
| 739 | 37 | 40.2 | 1396 | 2 | Q4PHC7_GIBZE | Q4phc7 gibberella | 812 | 36 | 39.1 | 173 | 2 | Q6W80_CAEER | Q6w80 caenorhabdi |
| 740 | 37 | 40.2 | 1509 | 2 | Q4P7F0_USTWA | Q4p7f0 ustilago ma | 813 | 36 | 39.1 | 179 | 1 | YB70_CAEEL | Q21045 caenorhabdi |
| 741 | 37 | 40.2 | 1633 | 1 | YP74_CAEEL | Q09221 caenorhabdi | 814 | 36 | 39.1 | 179 | 2 | Q5YZX3_NOCFA | Q5yzz3 nocardia fa |
| 742 | 37 | 40.2 | 2022 | 2 | Q4T342_TETNG | Q4t342 tetraodon n | 815 | 36 | 39.1 | 180 | 2 | Q9RAJ2_MYCSX | Q9raj2 mycobacteri |
| 743 | 37 | 40.2 | 2039 | 2 | Q4SJV2_TETNG | Q4sjv2 tetraodon n | 816 | 36 | 39.1 | 183 | 2 | Q9KB28_BACHD | Q9kb28 bacillus ha |
| 744 | 37 | 40.2 | 2143 | 2 | Q9CBA6_ARATH | Q9cba6 arabidopsis | 817 | 36 | 39.1 | 186 | 2 | Q5E5E1_VIBF1 | Q5ese1 vibrio fisc |
| 745 | 37 | 40.2 | 2151 | 2 | Q8RVL2_ARATH | Q8rvl2 arabidopsis | 818 | 36 | 39.1 | 186 | 2 | Q69044_RHOPR | Q69044 rhodococcu |
| 746 | 37 | 40.2 | 2209 | 2 | Q4QEP0_LEIMA | Q4qep0 leishmania | 819 | 36 | 39.1 | 186 | 2 | Q6LLB8_PHOPR | Q6llb8 photobacter |
| 747 | 37 | 40.2 | 2510 | 2 | Q94658_PLAFA | Q94658 plasmodium | 820 | 36 | 39.1 | 190 | 2 | Q6SH00_BACLD | Q6sh00 bacillus l1 |
| 748 | 37 | 40.2 | 2524 | 2 | Q6C8Q9_YARLI | Q6c8q9 yarrowia li | 821 | 36 | 39.1 | 193 | 2 | Q8NOF8_PLAVI | Q8nof8 plasmodium |
| 749 | 37 | 40.2 | 2544 | 2 | Q4LY33_9BURK | Q4ly33 burkholderi | 822 | 36 | 39.1 | 196 | 2 | Q8WMH4_MACMU | Q8wmh4 macaca mula |
| 750 | 37 | 40.2 | 2544 | 2 | Q5WRU2_CAEEL | Q5wru2 caenorhabdi | 823 | 36 | 39.1 | 198 | 2 | Q19147_CAEEL | Q19147 caenorhabdi |
| 751 | 37 | 40.2 | 4034 | 2 | Q5R127_BRARE | Q5r127 brachydanio | 824 | 36 | 39.1 | 201 | 1 | PYRP_THEMA | Q9yvg7 thermotoga |
| 752 | 37 | 40.2 | 4910 | 2 | Q4SFN5_TETNG | Q4sfns tetraodon n | 825 | 36 | 39.1 | 201 | 2 | Q92SH3_RHIME | Q92sh3 rhizobium m |
| 753 | 37 | 40.2 | 5035 | 1 | RYR1_PIG | P16960 sus scrofa | 826 | 36 | 39.1 | 202 | 2 | Q4ZS35_PSEES | Q4zs35 pseudomonas |
| 754 | 37 | 40.2 | 5035 | 2 | Q29104_PIG | Q29104 sus scrofa | 827 | 36 | 39.1 | 202 | 2 | Q880L8_PSESM | Q880l8 pseudomonas |
| 755 | 37 | 40.2 | 5035 | 2 | Q29105_PIG | Q29105 sus scrofa | 828 | 36 | 39.1 | 203 | 2 | Q4KC17_PSEFS | Q4kc17 pseudomonas |
| 756 | 37 | 40.2 | 5035 | 2 | Q80X16_MOUSE | Q80x16 mus musculus | 829 | 36 | 39.1 | 210 | 2 | Q8CK56_STRCO | Q8ck56 streptomyce |
| 757 | 37 | 40.2 | 5037 | 1 | RYR1_RABIT | P11716 cryptotagus | 830 | 36 | 39.1 | 216 | 2 | Q692L1_YESEN | Q692l1 yersinia en |
| 758 | 37 | 40.2 | 5037 | 2 | Q91313_RANCA | Q91313 rana catesb | 831 | 36 | 39.1 | 219 | 2 | Q7M9I3_WOLSU | Q7m9i3 wolinnella s |
| 759 | 37 | 40.2 | 5038 | 1 | RYR1_HUMAN | P21817 homo sapien | 832 | 36 | 39.1 | 221 | 2 | Q7RYB1_NEUCR | Q7ryb1 neurospora |
| 760 | 37 | 40.2 | 5081 | 2 | Q13054_MAKNI | Q13054 makaira nig | 833 | 36 | 39.1 | 227 | 2 | Q8WMH3_MACMU | Q8wmh3 macaca mula |
| 761 | 37 | 40.2 | 7548 | 2 | Q5WRU1_CAEEL | Q5wru1 caenorhabdi | 834 | 36 | 39.1 | 243 | 1 | NCAP_PTPV | P03515 punta toro |

| | | | | | | | | | | | | | |
|-----|----|------|-----|---|--------------|---------------------|-----|----|------|-----|---|--------------|---------------------|
| 835 | 36 | 39.1 | 244 | 2 | Q9BIX0_TRIPS | Q9bix0 trichinella | 908 | 36 | 39.1 | 391 | 2 | Q5VIX5_9RHAB | Q5vix5 infectious |
| 836 | 36 | 39.1 | 245 | 2 | Q73ED9_TREDE | Q73ed9 treponema d | 909 | 36 | 39.1 | 391 | 2 | Q5VIX6_9RHAB | Q5vix6 infectious |
| 837 | 36 | 39.1 | 250 | 2 | Q72N27_LEPIC | Q72n27 leptospira | 910 | 36 | 39.1 | 391 | 2 | Q5VIX7_9RHAB | Q5vix7 infectious |
| 838 | 36 | 39.1 | 250 | 2 | Q8F8J7_LEPIC | Q8f8j7 leptospira | 911 | 36 | 39.1 | 391 | 2 | Q5VIY0_9RHAB | Q5viy0 infectious |
| 839 | 36 | 39.1 | 254 | 2 | Q4IAV9_GIBZE | Q4iav9 gibberella | 912 | 36 | 39.1 | 391 | 2 | Q5VIY2_9RHAB | Q5viy2 infectious |
| 840 | 36 | 39.1 | 256 | 2 | Q90LS7_9HIV1 | Q90ls7 human immun | 913 | 36 | 39.1 | 391 | 2 | Q5VJ82_9RHAB | Q5vj82 infectious |
| 841 | 36 | 39.1 | 257 | 2 | Q6GOM7_BRARE | Q6gom7 brachydanio | 914 | 36 | 39.1 | 391 | 2 | Q68M50_9RHAB | Q68m50 infectious |
| 842 | 36 | 39.1 | 262 | 2 | Q8UIP0_AGR75 | Q8uiop0 agrobacteri | 915 | 36 | 39.1 | 391 | 2 | Q82679_9RHAB | Q82679 infectious |
| 843 | 36 | 39.1 | 262 | 2 | Q98JQ3_RHILO | Q98jq3 rhizobium l | 916 | 36 | 39.1 | 391 | 2 | Q82680_9RHAB | Q82680 infectious |
| 844 | 36 | 39.1 | 263 | 2 | Q9HUX4_PSEAE | Q9hux4 pseudomonas | 917 | 36 | 39.1 | 391 | 2 | Q88449_9RHAB | Q88449 infectious |
| 845 | 36 | 39.1 | 264 | 2 | Q82924_STRAW | Q82924 streptomyc | 918 | 36 | 39.1 | 394 | 1 | PEPA_ASPAW | P17946 aspergillus |
| 846 | 36 | 39.1 | 265 | 1 | MUR12_BACSU | Q05412 bacillus su | 919 | 36 | 39.1 | 394 | 2 | P78735_PENJA | P78735 penicillium |
| 847 | 36 | 39.1 | 265 | 2 | Q6L875_BACSU | Q6l875 bacillus su | 920 | 36 | 39.1 | 394 | 2 | Q00207_ASPNG | Q00207 aspergillus |
| 848 | 36 | 39.1 | 266 | 2 | Q49712_ARATH | Q49712 arabidopsis | 921 | 36 | 39.1 | 394 | 2 | Q62153_CABEL | Q62153 caenorhabdi |
| 849 | 36 | 39.1 | 269 | 2 | Q70681_PSEPU | Q70681 pseudomonas | 922 | 36 | 39.1 | 396 | 2 | Q63Y71_BURPS | Q63y71 burkholderi |
| 850 | 36 | 39.1 | 272 | 2 | Q514X6_ENTHI | Q514x6 entamoeba h | 923 | 36 | 39.1 | 399 | 2 | Q5LAF4_BACFN | Q5laf4 bacteroides |
| 851 | 36 | 39.1 | 272 | 2 | Q7DIU7_AGR75 | Q7diu7 agrobacteri | 924 | 36 | 39.1 | 399 | 2 | Q8CX74_OCBIH | Q8cx74 oceanobacil |
| 852 | 36 | 39.1 | 277 | 2 | Q8G5M8_BIFLO | Q8g5m8 bifidobacte | 925 | 36 | 39.1 | 401 | 2 | Q515B6_ENTHI | Q515b6 entamoeba h |
| 853 | 36 | 39.1 | 284 | 1 | CI042_CHICK | Q52in7 gallus gall | 926 | 36 | 39.1 | 406 | 1 | YNQ5_YEAST | YN5391 saccharomyc |
| 854 | 36 | 39.1 | 288 | 2 | Q9KAB6_BACHD | Q9kab6 bacillus ha | 927 | 36 | 39.1 | 409 | 2 | Q72N67_LEPIC | Q72n67 leptospira |
| 855 | 36 | 39.1 | 289 | 2 | Q8FGB4_ECOL6 | Q8fgb4 escherichia | 928 | 36 | 39.1 | 409 | 2 | Q8F8E6_LEPIN | Q8f8e6 leptospira |
| 856 | 36 | 39.1 | 293 | 2 | Q571F1_SALCH | Q571f1 salmonella | 929 | 36 | 39.1 | 410 | 2 | Q62EN6_BURMA | Q62en6 burkholderi |
| 857 | 36 | 39.1 | 293 | 2 | Q5PLQ4_SALPA | Q5plq4 salmonella | 930 | 36 | 39.1 | 413 | 1 | NCAP_IHNV | P19591 infectious |
| 858 | 36 | 39.1 | 293 | 2 | Q822D6_SALTI | Q822d6 salmonella | 931 | 36 | 39.1 | 415 | 2 | Q8KZG2_HELPY | Q8kzg2 helicobacte |
| 859 | 36 | 39.1 | 293 | 2 | Q8ZL71_SALTY | Q8zl71 salmonella | 932 | 36 | 39.1 | 416 | 2 | Q6YRP4_SYNY3 | Q6yrp4 synecocyst |
| 860 | 36 | 39.1 | 293 | 2 | Q7UBM8_SYNPX | Q7ubm8 synecococc | 933 | 36 | 39.1 | 419 | 1 | YLBE_ECOLI | Q8fk53 escherichia |
| 861 | 36 | 39.1 | 298 | 2 | Q6TUG7_RAT | Q6tug7 rattus norv | 934 | 36 | 39.1 | 419 | 2 | Q8FK53_ECOL6 | Q8fk53 escherichia |
| 862 | 36 | 39.1 | 300 | 2 | Q96LJ0_HUMAN | Q96lj0 homo sapien | 935 | 36 | 39.1 | 421 | 2 | Q86TT5_HUMAN | Q86tt5 homo sapien |
| 863 | 36 | 39.1 | 301 | 2 | Q89UN9_BRAJA | Q89un9 bradyrhizob | 936 | 36 | 39.1 | 423 | 2 | Q8N9E2_HUMAN | Q8n9e2 homo sapien |
| 864 | 36 | 39.1 | 304 | 2 | Q7UFW7_RHOBA | Q7ufw7 rhodopirell | 937 | 36 | 39.1 | 425 | 1 | SVH_BUGBP | P59482 buchnera ap |
| 865 | 36 | 39.1 | 305 | 2 | Q74G80_GEOSL | Q74g80 geobacter s | 938 | 36 | 39.1 | 425 | 2 | Q9XCC1_STRFR | Q9xccl1 streptomyc |
| 866 | 36 | 39.1 | 307 | 1 | GPDA_ANASP | Q8ywc2 anabaena ep | 939 | 36 | 39.1 | 431 | 1 | TYRI_SCHPO | Q60078 schizosacch |
| 867 | 36 | 39.1 | 309 | 2 | Q675T8_9UROC | Q675t8 oikopleura | 940 | 36 | 39.1 | 438 | 2 | Q4QKW2_HAEI8 | Q4qkw2 haemophilus |
| 868 | 36 | 39.1 | 309 | 2 | Q9XIP5_ARATH | Q9xip5 arabidopsis | 941 | 36 | 39.1 | 442 | 1 | NRX1B_HUMAN | P58400 homo sapien |
| 869 | 36 | 39.1 | 309 | 2 | Q6PH60_BRARE | Q6ph60 brachydanio | 942 | 36 | 39.1 | 451 | 2 | Q6LID0_PHOPR | Q6lid0 photobacter |
| 870 | 36 | 39.1 | 311 | 2 | Q8XHC8_CLOPE | Q8xhc8 clostridium | 943 | 36 | 39.1 | 452 | 2 | Q71LW1_TOBAC | Q71lw1 nicotiana t |
| 871 | 36 | 39.1 | 312 | 2 | Q5V2P3_HALMA | Q5v2p3 haloartula | 944 | 36 | 39.1 | 453 | 1 | NHAC_BACSU | Q07553 bacillus su |
| 872 | 36 | 39.1 | 314 | 2 | Q7X292_9ACTO | Q7x292 streptomyc | 945 | 36 | 39.1 | 453 | 2 | Q5KIX2_CRYNE | Q5kix2 cryptococcu |
| 873 | 36 | 39.1 | 314 | 2 | Q5KZD2_GEOKA | Q5kzd2 geobacillus | 946 | 36 | 39.1 | 453 | 2 | Q55TG5_CRYNE | Q55tg5 cryptococcu |
| 874 | 36 | 39.1 | 319 | 2 | Q6FY34_CANGA | Q6fy34 candida gla | 947 | 36 | 39.1 | 454 | 2 | Q4HXE1_GIBZE | Q4hxe1 gibberella |
| 875 | 36 | 39.1 | 321 | 2 | Q925Y0_RHIME | Q925y0 rhizobium m | 948 | 36 | 39.1 | 455 | 2 | Q88Z17_LACPE | Q88z17 lactobacill |
| 876 | 36 | 39.1 | 321 | 2 | Q92TH1_RHIME | Q92th1 rhizobium m | 949 | 36 | 39.1 | 467 | 1 | NRX1B_BOVIN | Q28142 bos taurus |
| 877 | 36 | 39.1 | 322 | 2 | Q6XWAL_BRARE | Q6xwal brachydanio | 950 | 36 | 39.1 | 468 | 1 | NRX1B_RAT | Q28142 bos taurus |
| 878 | 36 | 39.1 | 323 | 2 | Q54XQ5_DICDI | Q54xq5 dictyosteli | 951 | 36 | 39.1 | 470 | 2 | Q5SLN5_BACFN | Q5sln5 bacteroides |
| 879 | 36 | 39.1 | 327 | 2 | Q4WSA7_BACCE | Q4wsa7 bacillus ce | 952 | 36 | 39.1 | 470 | 2 | Q4UT66_CORJK | Q4ut66 corynebacte |
| 880 | 36 | 39.1 | 327 | 2 | Q73BM0_BACC1 | Q73bm0 bacillus ce | 953 | 36 | 39.1 | 470 | 2 | Q64ZS1_BACFR | Q64zsl1 bacteroides |
| 881 | 36 | 39.1 | 329 | 2 | Q9SUN8_ARATH | Q9sin8 arabidopsis | 954 | 36 | 39.1 | 472 | 2 | Q4SD76_TETNG | Q4sd76 tetraodon n |
| 882 | 36 | 39.1 | 331 | 2 | Q6HLQ9_BACHK | Q6hlq9 bacillus th | 955 | 36 | 39.1 | 473 | 2 | Q985G5_RHILO | Q985g5 rhizobium l |
| 883 | 36 | 39.1 | 331 | 2 | Q6J8B4_BACCZ | Q6j8b4 bacillus ce | 956 | 36 | 39.1 | 475 | 1 | FRIG_ERWCH | Q07162 erwania chr |
| 884 | 36 | 39.1 | 331 | 2 | Q5YVZ7_NOCFA | Q5yvz7 nocardia fa | 957 | 36 | 39.1 | 486 | 2 | Q4RU74_TETNG | Q4ru74 tetraodon n |
| 885 | 36 | 39.1 | 333 | 2 | Q8XCV6_ECO57 | Q8xcv6 escherichia | 958 | 36 | 39.1 | 488 | 2 | Q76962_NASVI | Q76962 nasonia vit |
| 886 | 36 | 39.1 | 335 | 2 | Q623L3_CAEBR | Q623l3 caenorhabdi | 959 | 36 | 39.1 | 488 | 2 | P72307_RHOOP | P72307 rhodococcus |
| 887 | 36 | 39.1 | 335 | 2 | Q829L9_STRAW | Q829l9 streptomyc | 960 | 36 | 39.1 | 489 | 2 | Q5CH47_CRYHO | Q5ch47 cryptospori |
| 888 | 36 | 39.1 | 338 | 1 | TISB_HUMAN | Q07352 homo sapien | 961 | 36 | 39.1 | 490 | 1 | AV77_YEAST | P40501 saccharomyc |
| 889 | 36 | 39.1 | 338 | 1 | TISB_MOUSE | P23950 mus musculu | 962 | 36 | 39.1 | 504 | 2 | Q02254_CABEL | Q02254 caenorhabdi |
| 890 | 36 | 39.1 | 338 | 1 | TISB_RAT | P17431 rattus norv | 963 | 36 | 39.1 | 505 | 2 | Q6IL87_DROME | Q6il87 drosophila |
| 891 | 36 | 39.1 | 338 | 2 | Q91YI7_MOUSE | Q91yi7 mus musculu | 964 | 36 | 39.1 | 511 | 2 | Q86X33_HUMAN | Q86x33 salmo sapien |
| 892 | 36 | 39.1 | 338 | 2 | Q543H2_MOUSE | Q543h2 m 9 days em | 965 | 36 | 39.1 | 514 | 2 | Q6T936_SALTU | Q6t936 salmo trutt |
| 893 | 36 | 39.1 | 341 | 2 | Q9UWE1_CANTR | Q9uwei candida tro | 966 | 36 | 39.1 | 515 | 2 | Q4RWI3_TETNG | Q4rwi3 tetraodon n |
| 894 | 36 | 39.1 | 344 | 2 | Q5XJ67_BRARE | Q5xj67 brachydanio | 967 | 36 | 39.1 | 516 | 2 | Q6NGR0_CORDI | Q6ngr0 corynebacte |
| 895 | 36 | 39.1 | 348 | 2 | Q8GXX6_ARATH | Q8gxx6 arabidopsis | 968 | 36 | 39.1 | 522 | 2 | Q8BG75_MOUSE | Q8bg75 m mus muscu |
| 896 | 36 | 39.1 | 349 | 2 | Q4NUC2_9DELT | Q4nuc2 anaeromyxob | 969 | 36 | 39.1 | 522 | 2 | Q8BVY7_MOUSE | Q8bvy7 mus musculu |
| 897 | 36 | 39.1 | 352 | 2 | Q67DX1_9REAL | Q67dx1 ralstonia s | 970 | 36 | 39.1 | 522 | 2 | Q8KIJ3_MOUSE | Q8kij3 mus musculu |
| 898 | 36 | 39.1 | 354 | 2 | Q9AJY7_STRCO | Q9ajy7 streptomyc | 971 | 36 | 39.1 | 523 | 2 | Q5M7W3_RAT | Q5m7w3 rattus norv |
| 899 | 36 | 39.1 | 355 | 2 | Q51Q14_MAGGR | Q51q14 magnaporthe | 972 | 36 | 39.1 | 523 | 2 | Q8TD30_HUMAN | Q8td30 homo sapien |
| 900 | 36 | 39.1 | 358 | 2 | Q7VF36_HELHP | Q7vf36 helicobacte | 973 | 36 | 39.1 | 524 | 1 | PPBT_FELCA | Q29486 fella silve |
| 901 | 36 | 39.1 | 362 | 1 | FABH2_VIBVU | Q8d719 vibrio vuln | 974 | 36 | 39.1 | 529 | 1 | NRX1A_MOUSE | Q9c884 mus musculu |
| 902 | 36 | 39.1 | 362 | 1 | FABH2_VIBVU | Q7m713 vibrio vuln | 975 | 36 | 39.1 | 533 | 2 | Q5BFG7_EMENI | Q5bfg7 aspergillus |
| 903 | 36 | 39.1 | 362 | 2 | Q4FWV0_LEIMA | Q4fwv0 leishmania | 976 | 36 | 39.1 | 533 | 2 | Q4WCS0_ASPFU | Q4wcs0 aspergillus |
| 904 | 36 | 39.1 | 379 | 2 | Q34599_BACSU | Q34599 bacillus su | 977 | 36 | 39.1 | 534 | 2 | Q9LLE1_TOBAC | Q9lle1 nicotiana t |
| 905 | 36 | 39.1 | 387 | 2 | Q8STL9_ENCCU | Q8stl9 encephalito | 978 | 36 | 39.1 | 538 | 2 | Q967D0_GEOCY | Q967d0 geodia cydo |
| 906 | 36 | 39.1 | 391 | 2 | Q5VIX1_9RHAB | Q5vix1 infectious | 979 | 36 | 39.1 | 547 | 2 | P97531_RAT | P97531 rattus norv |
| 907 | 36 | 39.1 | 391 | 2 | Q5VIX2_9RHAB | Q5vix2 infectious | 980 | 36 | 39.1 | 547 | 2 | Q6P744_RAT | Q6p744 rattus norv |

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981 36 39.1 548 2 Q5XQP1 9SACH
982 36 39.1 548 2 Q7N484 PHOLL
983 36 39.1 551 2 Q8UAQ1 AGRTS
984 36 39.1 556 2 Q6FS53 CANGA
985 36 39.1 560 1 CBS RAT
986 36 39.1 560 2 Q7ZUX0 BRARE
987 36 39.1 564 2 Q9UFA0 HUMAN
988 36 39.1 565 2 Q6C5H1 YARLI
989 36 39.1 567 2 Q6FMJ8 CANGA
990 36 39.1 569 2 Q54PS7 DICDI
991 36 39.1 569 2 Q84K25 ARATH
992 36 39.1 569 2 Q8LCN9 ARATH
993 36 39.1 573 2 Q8DM18 SYNEL
994 36 39.1 577 2 Q5AS59 EMENI
995 36 39.1 579 2 Q9US10 SCHPO
996 36 39.1 579 2 Q8LDL2 ARATH
997 36 39.1 579 2 Q9SRK7 ARATH
998 36 39.1 582 2 Q8R5J8 MOUSE
999 36 39.1 592 1 GCL_ECOLI
1000 36 39.1 592 2 Q8TNU9 METAC

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ALIGNMENTS

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RESULT 1
ANFB HUMAN
ID ANFB HUMAN STANDARD; PRT; 134 AA.
AC P16860;
DT 01-AUG-1990 (Rel. 15, Created)
DT 01-AUG-1990 (Rel. 15, Last sequence update)
DT 10-WAY-2005 (Rel. 47, Last annotation update)
DE Natriuretic peptides B precursor [Contains: Gamma-brain natriuretic
DE peptide; Brain natriuretic peptide 32 (BNP-32)].
GN Name-NPPB;
OS Homo sapiens (Human)
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
[1]
RN RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=90088474; PubMed=2597152;
RA Seilhamer J.J., Arifsten A., Miller J.A., Lundquist P.,
RA Scarborough R.M., Lewicki J.A., Porter J.G.;
RT "Human and canine gene homologs of porcine brain natriuretic
RT peptide.";
RL Biochem. Biophys. Res. Commun. 165:650-658(1989).
RN RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=89193743; PubMed=2522777;
RA Sudoh T., Maekawa K., Kojima M., Minamino N., Kangawa K., Matsuo H.;
RT "Cloning and sequence analysis of cDNA encoding a precursor for human
RT brain natriuretic peptide.";
RL Biochem. Biophys. Res. Commun. 159:1427-1434(1989).
[3]
RN RP NUCLEOTIDE SEQUENCE [LARGE SCALE GENOMIC DNA].
RG Human chromosome 1 international sequencing consortium;
RL Submitted (MAY-1998) to the EMBL/GenBank/DBJ databases.
[4]
RN RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC TISSUE=Pancreas, and Spleen;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Xsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Udwin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaby S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

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RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettman M., Madan A., Rodriguez S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grinwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalilus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
[5]
RN RP PROTEIN SEQUENCE OF 27-58 AND 103-134.
RX MEDLINE=90211249; PubMed=2138890;
RA Hino J., Tateyaa H., Minamino N., Kangawa K., Matsuo H.;
RT "Isolation and identification of human brain natriuretic peptides in
RT cardiac atrium.";
RL Biochem. Biophys. Res. Commun. 167:693-700(1990).
[6]
RN RP PROTEIN SEQUENCE OF 103-134.
RX MEDLINE=90092577; PubMed=2136732; DOI=10.1016/0014-5793(90)80043-J;
RA Kambayashi Y., Nakao K., Mukoyama M., Saito Y., Ogawa Y., Shiono S.,
RA Inouye K., Yoshida N., Imura H.;
RT "Isolation and sequence determination of human brain natriuretic
RT peptide in human atrium.";
RL FEBS Lett. 259:341-345(1990).
CC -!- FUNCTION: Acts as a cardiac hormone with a variety of biological
CC actions including natriuresis, diuresis, vasorelaxation, and
CC inhibition of renin and aldosterone secretion. It is thought to
CC play a key role in cardiovascular homeostasis. Helps restore the
CC body's salt and water balance. Improves heart function.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- TISSUE SPECIFICITY: Brain and also in atria, but at much lower
CC levels than ANP.
CC -!- PHARMACEUTICAL: Available under the name Nesiritide (Scios). Used
CC for the treatment of heart failure.
CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
CC -----
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CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; M31776; AAA35603.1; -; Genomic_DNA.
CC EMBL; M25296; AAA36355.1; -; mRNA.
CC EMBL; AL021155; CAAL5956.1; -; Genomic_DNA.
CC EMBL; BC025785; AAH25785.1; -; mRNA.
CC FIR; A36736; AWHUB.
CC Ensembl; ENSG00000120937; Homo sapiens.
CC HGNC; HGNC:7940; NPPB.
CC H-InvDB; HIX0000131; -.
CC MIM; 600295; -.
CC GO; GO:0005615; C:extracellular space; NAS.
CC GO; GO:0008613; P:diuretic hormone activity; TAS.
CC GO; GO:0007166; P:cell surface receptor linked signal transdu. .; NAS.
CC GO; GO:0030146; P:diuresis; TAS.
CC GO; GO:0007589; P:fluid secretion; TAS.
CC GO; GO:0030147; P:natriuresis; TAS.
CC GO; GO:0016525; P:negative regulation of cell growth; NAS.
CC GO; GO:0030308; P:negative regulation of blood pressure; NAS.
CC GO; GO:0008217; P:negative regulation of blood pressure; NAS.
CC GO; GO:0043114; P:regulation of vascular permeability; TAS.
CC GO; GO:0043312; P:regulation of vasodilation; NAS.
CC InterPro; IPR002408; Br_natriuretic.
CC InterPro; IPR000663; Natr_peptide.
CC Pfam; PF00212; ANP; 1.
CC PRINTS; PR00712; BNATPEPTIDE.
CC PRINTS; PR00710; NATPEPTIDES.
CC ProDom; PD005617; NATPEPTIDE; 1.
CC PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Direct protein sequencing; Hormone; Polymorphism; Signal; Vasoactive.
FT SIGNAL 1 26
FT CHAIN 27 134 Gamma-brain natriuretic peptide.

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FT PEPTIDE 103 134 Brain natriuretic peptide 32.
FT DISULFID 112 128 By similarity.
FT VARIANT 25 25 R -> L (in dbSNP:5227) .
FT VARIANT 47 47 /FTId=VAR_014580.
FT VARIANT 47 47 R -> H (in dbSNP:5229) .
FT VARIANT 93 93 /FTId=VAR_014581.
FT VARIANT 93 93 M -> L (in dbSNP:5230) .
FT SEQUENCE 134 AA; 14726 MW; DC884D9408462146 CRC64;
Query Match 100.0%; Score 92; DB 1; Length 134;
Best Local Similarity 100.0%; Pred. No. 78-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 112 CFGRKMDRISSSSGLGC 128
|||||
|||||

RESULT 2
Q6FGY0 HUMAN PRELIMINARY; PRT; 134 AA.
AC Q6FGY0;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
DE NPPB protein.
GN Name=NPPB;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RA Halleck A., Ebert L., Mkoondinya M., Schick M., Eisenstein S.,
RA Neubert P., Kstrang K., Schatten R., Shen B., Henze S., Mar W.,
RA Korn B., Zuo D., Hu Y., LaBaer J.;
RL Submitted (JUN-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; CR541976; CAG46774.1; -; mRNA.
DR EMBL; CR542003; CAG46800.1; -; mRNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0050880; P:regulation of blood vessel size; IEA.
KW Vasoactive.
SQ SEQUENCE 134 AA; 14726 MW; DC884D9408462146 CRC64;

Query Match 100.0%; Score 92; DB 2; Length 134;
Best Local Similarity 100.0%; Pred. No. 78-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 112 CFGRKMDRISSSSGLGC 128
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|||||

RESULT 3
ANFB BOVIN
ID ANFB BOVIN STANDARD; PRT; 103 AA.
AC P13204;
DT 01-JAN-1990 (Rel. 13, Created)
DT 01-DEC-1992 (Rel. 24, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Natriuretic peptides B precursor [Contains: Gamma-brain natriuretic
DE peptide; Aldosterone secretion inhibitory factor (ASIF); Brain
DE natriuretic peptide 26 (BNP-26)].
GN Name=NPPB;
OS Bos taurus (Bovine).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Bovinae; Bos.
OX NCBI_TaxID=9913;
RN [1]

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RP PROTEIN SEQUENCE.
RX MEDLINE=90114187; PubMed=2532709;
RA Nguyen T.T., Lazure C., Babinski K., Chretien M., de Lean A., Ong H.;
RT "Purification and primary structure of pro-aldosterone secretion
RT inhibitory factor from bovine adrenal chromaffin cells.";
RL Mol. Endocrinol. 3:1823-1829(1989).
RN [2]
RP PROTEIN SEQUENCE OF 69-103.
RX MEDLINE=89136947; PubMed=2537187;
RA Nguyen T.T., Lazure C., Babinski K., Chretien M., Ong H., de Lean A.;
RT "Aldosterone secretion inhibitory factor: a novel neuro peptide in
RT bovine chromaffin cells.";
RL Endocrinology 124:1591-1593(1989).
CC -I- FUNCTION: Acts as a cardiac hormone with a variety of biological
CC actions including natriuresis, diuresis, vasorelaxation, and
CC inhibition of renin and aldosterone secretion. It is thought to
CC play a key role in cardiovascular homeostasis. Helps restore the
CC body's salt and water balance. Improves heart function.
CC -I- SUBCELLULAR LOCATION: Secreted.
CC -I- TISSUE SPECIFICITY: Brain and also in atria, but at much lower
CC levels than ANP.
CC -I- SIMILARITY: Belongs to the natriuretic peptide family.
CC -----
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CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC PIR; A41403; A41403.
CC InterPro; IPR002408; Br_natriurtpep.
CC InterPro; IPR000663; Natr_peptide.
CC Pfam; PF00212; ANP; 1.
CC PRINTS; PR00712; BNATPEPTIDES.
CC PRINTS; PR00710; NATPEPTIDES.
CC ProDom; PD005617; Natr_peptide; 1.
CC PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Direct protein sequencing; Hormone; Vasoactive.
FT CHAIN 1 103 Gamma-brain natriuretic peptide.
FT PEPTIDE 69 103 Aldosterone secretion inhibitory factor.
FT PEPTIDE 78 103 Brain natriuretic peptide 26.
FT DISULFID 81 97
SQ SEQUENCE 103 AA; 11249 MW; 40209204AFE3851D CRC64;

Query Match 82.6%; Score 76; DB 1; Length 103;
Best Local Similarity 76.5%; Pred. No. 3.6e-05;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 81 CFGRKMDRISSSSGLGC 97
|||||
|||||

RESULT 4
Q9GLK5 FELCA PRELIMINARY; PRT; 112 AA.
AC Q9GLK5;
DT 01-MAR-2001 (TrEMBLrel. 16, Created)
DT 01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Brain natriuretic peptide (fragment).
OS Felis silvestris catus (Cat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Felidae;
OC Felis.
OX NCBI_TaxID=9685;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Liu Z.L., Wiedmeyer C.E., Solter P.F., Sisson D.D.;
RL Submitted (MAR-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF251261; AAG13660.1; -; Genomic_DNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.

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DR GO:0050880; P:regulation of blood vessel size; IEA.
DR InterPro; IPR002408; Br_natriurtcpep.
DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00712; BNATPEPTIDE.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Vasoactive.
FT NON_TER 1
FT NON_TER 112
FT NON_TER 112
SQ SEQUENCE 112 AA; 12083 MW; 580224F12984FFB2 CRC64;
Query Match 82.6%; Score 76; DB 2; Length 112;
Best Local Similarity 76.5%; Pred. No. 3.9e-05;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
QY 1 CFGRKMDRISSSSGLGC 17
Db 90 CFGRRLDRIGSLGLGC 106
RESULT 5
ANFC2_ORYLA STANDARD; PRT; 126 AA.
AC Q8AYR5;
DT 25-OCT-2004 (Rel. 45, Created)
DT 25-OCT-2004 (Rel. 45, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE C-type natriuretic peptide-2 precursor.
GN Name=cnp-2;
OS Oryzias latipes (Medaka fish) (Japanese ricefish).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC Acanthomorpha; Acanthopterygii; Percomorpha; Atherinomorpha;
OC Belontiiformes; Adrianichthyidae; Oryziinae; Oryzias.
OX NCBI_TaxID=8090;
RN [1]
RP NUCLEOTIDE SEQUENCE, FUNCTION, TISSUE SPECIFICITY, AND SYNTHESIS.
RC TISSUE=Brain;
RX PubMed=12893874; DOI=10.1073/pnas.1632368100;
RA Inoue K., Naruse K., Yamagami S., Mitani H., Suzuki N., Takei Y.;
RT "Four functionally distinct C-type natriuretic peptides found in fish
RT reveal evolutionary history of the natriuretic peptide system.";
RL Proc. Natl. Acad. Sci. U.S.A. 100:10079-10084(2003).
CC -!- FUNCTION: Exhibits natriuretic and vasodepressant activity. Has
CC CGMP-stimulating activity. May help to regulate body fluid
CC homeostasis in a variety of aquatic environments.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- TISSUE SPECIFICITY: Brain and spinal cord.
CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
-----
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CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
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DR EMBL; AB081456; BAC15761.1; -; mRNA.
DR InterPro; IPR002408; Br_natriurtcpep.
DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00712; BNATPEPTIDE.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Hormone; Signal; Vasoactive.
FT SIGNAL 1 22 Potential.
FT CHAIN 27 129 Gamma-brain natriuretic peptide.
FT PEPTIDE 101 129 Brain natriuretic peptide 29 (By
FT similarity).
FT PEPTIDE 104 129 Brain natriuretic peptide 26 (By
FT similarity).
FT DISULFID 107 123 By similarity.
FT SEQUENCE 129 AA; 14118 MW; 13D4DF91D32A28EF CRC64;
Query Match 82.6%; Score 76; DB 1; Length 129;
Best Local Similarity 76.5%; Pred. No. 4.6e-05;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
QY 1 CFGRKMDRISSSSGLGC 17
SQ SEQUENCE 126 AA; 13400 MW; 9D5D7B8DDECB0F92 CRC64;
Query Match 82.6%; Score 76; DB 1; Length 126;
Best Local Similarity 82.4%; Pred. No. 4.4e-05;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
QY 1 CFGRKMDRISSSSGLGC 17
Db 110 CFGRMDRIGSISGLGC 126
RESULT 6
ANFB_SHEEP STANDARD; PRT; 129 AA.
ID ANFB_SHEEP
AC Q46541;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Natriuretic peptides B precursor (Contains: Gamma-brain natriuretic
DE peptide; Brain natriuretic peptide 29 (BNP-29); Brain natriuretic
DE peptide 26 (BNP-26)).
GN Name=NPPB;
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Caprinae; Ovis.
OX NCBI_TaxID=9940;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=99236261; PubMed=10219521; DOI=10.1016/S0739-7240(99)00005-3;
RA Aitken G.D., Raizis A.M., Yandle T.G., George P.M., Espiner E.A.,
RA Cameron V.A.;
RT "The characterization of ovine genes for atrial, brain, and C-type
RT natriuretic peptides.";
RL Domest. Anim. Endocrinol. 16:115-121(1999).
CC -!- FUNCTION: Acts as a cardiac hormone with a variety of biological
CC actions including natriuresis, diuresis, vasorelaxation, and
CC inhibition of renin and aldosterone secretion. It is thought to
CC play a key role in cardiovascular homeostasis. Helps restore the
CC body's salt and water balance. Improves heart function.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
-----
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CC use as long as its content is in no way modified and this statement is not
CC removed.
-----
DR EMBL; AF037466; AAB92565.1; -; Genomic_DNA.
DR InterPro; IPR002408; Br_natriurtcpep.
DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00712; BNATPEPTIDE.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Hormone; Signal; Vasoactive.
FT SIGNAL 1 26 Potential.
FT CHAIN 27 129 Gamma-brain natriuretic peptide.
FT PEPTIDE 101 129 Brain natriuretic peptide 29 (By
FT similarity).
FT PEPTIDE 104 129 Brain natriuretic peptide 26 (By
FT similarity).
FT DISULFID 107 123 By similarity.
FT SEQUENCE 129 AA; 14118 MW; 13D4DF91D32A28EF CRC64;
Query Match 82.6%; Score 76; DB 1; Length 129;
Best Local Similarity 76.5%; Pred. No. 4.6e-05;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
QY 1 CFGRKMDRISSSSGLGC 17
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Db      107  CFGRRLDRIGSLGLGC 123
||||:|||||
RESULT 7
ANFB_PIG  STANDARD;          PRT;   131 AA.
ID  ANFB_PIG  STANDARD;          PRT;   131 AA.
AC  P07634;
DT  01-APR-1988 (Rel. 07, Created)
DT  01-MAR-1989 (Rel. 10, Last sequence update)
DT  10-MAY-2005 (Rel. 47, Last annotation update)
DE  Natriuretic peptides B precursor [Contains: Gamma-brain natriuretic
DE  peptide; Brain natriuretic peptide 32 (BNP-32); Brain natriuretic
DE  peptide 26 (BNP-26)].
GN  Names-NPPB;
OS  Sus scrofa (Pig).
OC  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC  Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
OC  Sus.
OX  NCBI_TaxID=9823;
RN  [1]
RP  NUCLEOTIDE SEQUENCE.
RX  MEDLINE=89061744; PubMed=3196348;
RA  Maekawa K., Sudoh T., Furusawa M., Minamino N., Kangawa K., Okhubo H.,
RA  Nakanishi S., Matsuo H.;
RT  "Cloning and sequence analysis of cDNA encoding a precursor for
RT  porcine brain natriuretic peptide.";
RL  Biochem. Biophys. Res. Commun. 157:410-416(1988).
RN  [2]
RP  NUCLEOTIDE SEQUENCE.
RX  MEDLINE=89214071; PubMed=2708334;
RA  Porter J.G., Arfsten A., Palisi T., Scarborough R.M., Lewicki J.A.,
RA  Seilhamer J.J.;
RT  "Cloning of a cDNA encoding porcine brain natriuretic peptide.";
RL  J. Biol. Chem. 264:6689-6692(1989).
RN  [3]
RP  PROTEIN SEQUENCE OF 26-131.
RX  MEDLINE=89061743; PubMed=3196347;
RA  Minamino N., Kangawa K., Matsuo H.;
RT  "Isolation and identification of a high molecular weight brain
RT  natriuretic peptide in porcine cardiac atrium.";
RL  Biochem. Biophys. Res. Commun. 157:402-405(1988).
RN  [4]
RP  PROTEIN SEQUENCE OF 100-131.
RX  MEDLINE=88339957; PubMed=3421965;
RA  Sudoh T., Minamino N., Kangawa K., Matsuo H.;
RT  "Brain natriuretic peptide-32: N-terminal six amino acid extended form
RT  of brain natriuretic peptide identified in porcine brain.";
RL  Biochem. Biophys. Res. Commun. 155:726-732(1988).
RN  [5]
RP  PROTEIN SEQUENCE OF 106-131.
RX  MEDLINE=88156915; PubMed=2964562; DOI=10.1038/332078a0;
RA  Sudoh T., Kangawa K., Minamino N., Matsuo H.;
RT  "A new natriuretic peptide in porcine brain.";
RL  Nature 332:78-81(1988).
RN  [6]
RP  STRUCTURE BY NMR OF BNP-26.
RX  MEDLINE=91031435; PubMed=2146114;
RA  Inooka H., Kikuchi T., Endo S., Ishibashi Y., Wakimasu M., Mizuta E.;
RT  "Conformation in solution of porcine brain natriuretic peptide
RT  determined by combined use of nuclear magnetic resonance and distance
RT  geometry.";
RL  Eur. J. Biochem. 193:127-134(1990).
RN  [7]
RP  STRUCTURE BY NMR OF BNP-26.
RX  MEDLINE=92007873; PubMed=1915362;
RA  Craik D., Munro S., Nielsen K., Shehan P., Tregear G., Wade J.;
RT  "The conformation of porcine-brain natriuretic peptide by two-
RT  dimensional NMR spectroscopy.";
RL  Eur. J. Biochem. 201:183-191(1991).
CC  -!- FUNCTION: Acts as a cardiac hormone with a variety of biological
CC  actions including natriuresis, diuresis, vasorelaxation, and
CC  inhibition of renin and aldosterone secretion. It is thought to
CC  play a key role in cardiovascular homeostasis. Helps restore the

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CC  play a key role in cardiovascular homeostasis. Helps restore the
CC  body's salt and water balance. Improves heart function.
CC  -!- SUBCELLULAR LOCATION: Secreted.
CC  -!- TISSUE SPECIFICITY: Brain and also in atria, but at much lower
CC  levels than ANP.
CC  -!- SIMILARITY: Belongs to the natriuretic peptide family.
CC  -----
CC  This Swiss-Prot entry is copyright. It is produced through a collaboration
CC  between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC  the European Bioinformatics Institute. There are no restrictions on its
CC  use as long as its content is in no way modified and this statement is not
CC  removed.
CC  -----
DR  EMBL; M23596; AAB59258.1; -; mRNA.
DR  EMBL; M25547; AAA31007.1; -; Genomic_DNA.
DR  PIR; A31676; A31676.
DR  PIR; A33873; A33873.
DR  InterPro; IPR002408; Br_natriurtpep.
DR  InterPro; IPR000663; Natr_peptide.
DR  Pfam; PF00212; ANP; 1.
DR  PRINTS; PR00712; ENATPEPTIDES.
DR  PRINTS; PR00710; NATPEPTIDES.
DR  ProDom; PD005617; Natr_peptide; 1.
DR  PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW  Direct protein sequencing; Hormone; Signal; Vasoactive.
FT  SIGNAL 1 25
FT  CHAIN 26 131 Gamma-brain natriuretic peptide.
FT  PEPTIDE 100 131 Brain natriuretic peptide 32.
FT  PEPTIDE 106 131 Brain natriuretic peptide 26.
FT  DISULFID 109 125
FT  VARIANT 26 26 H -> Y (in a clone).
SQ  SEQUENCE 131 AA; 14512 MW; CC2F6E6E4A50C18A CRC64;

Query Match      82.6%; Score 76; DB 1; Length 131;
Best Local Similarity 76.5%; Pred. No. 4.6e-05;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY  1  CFGRKMDRISSSSLGLGC 17
    ||||:|||||
Db  109  CFGRRLDRIGSLGLGC 125

RESULT 8
ANFB_FELCA  STANDARD;          PRT;   132 AA.
ID  ANFB_FELCA  STANDARD;          PRT;   132 AA.
AC  Q9GLK4;
DT  05-JUL-2004 (Rel. 44, Created)
DT  05-JUL-2004 (Rel. 44, Last sequence update)
DT  10-MAY-2005 (Rel. 47, Last annotation update)
DE  Natriuretic peptides B precursor [Contains: Gamma-brain natriuretic
DE  peptide; Brain natriuretic peptide 32 (BNP-32)].
GN  Name-NPPB; Synonyms=BNP;
OS  Felis silvestris catus (Cat).
OC  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC  Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Felidae;
OC  Felinae; Felis.
OX  NCBI_TaxID=9685;
RN  [1]
RP  NUCLEOTIDE SEQUENCE.
RC  TISSUE=Heart atrium;
RX  MEDLINE=22114979; PubMed=12119112; DOI=10.1016/S0378-1119(02)00676-5;
RA  Liu Z.L., Wiedmeyer C.E., Sisson D.D., Solter P.F.;
RT  "Cloning and characterization of feline brain natriuretic peptide.";
RL  Gene 292:183-190(2002).
RN  [2]
RP  NUCLEOTIDE SEQUENCE.
RA  Liu Z.L.;
RL  Submitted (SEP-2001) to the EMBL/GenBank/DBJ databases.
CC  -!- FUNCTION: Acts as a cardiac hormone with a variety of biological
CC  actions including natriuresis, diuresis, vasorelaxation, and
CC  inhibition of renin and aldosterone secretion. It is thought to
CC  play a key role in cardiovascular homeostasis. Helps restore the

```

CC body's salt and water balance. Improves heart function (By
CC similarity).
CC -!- SUBCELLULAR LOCATION: Secreted (By similarity).
CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
CC -----
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CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; AF253495; AAG13661.1; -; mRNA.
CC EMBL; AF425738; AAL24812.1; -; Genomic_DNA.
CC InterPro; IPR002408; Br_natriurtcpep.
CC InterPro; IPR000663; Natr_peptide.
CC Pfam; PF00212; ANP; 1.
CC PRINTS; PR00712; NATPEPTIDES.
CC PRODOM; PD005617; Natr_peptide; 1.
CC SMART; SM00183; NAT_PEP; 1.
CC PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Hormone; Signal; Vasoactive.
FT SIGNAL 1 26 By similarity.
FT CHAIN 27 132 Gamma-brain natriuretic peptide.
FT PEPTIDE 101 132 Brain natriuretic peptide 32 (By
FT similarity).
FT DISULFID 110 126 By similarity.
FT SEQUENCE 132 AA; 14344 MW; D069B5F76A6C3510 CRC64;
SQ
Query Match 82.6%; Score 76; DB 1; Length 132;
Best Local Similarity 76.5%; Pred. No. 4.7e-05;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
QY 1 CFGRKMDRISSSSGLGC 17
DB 110 CFGRRLDRIGSLGLGC 126

RESULT 9
Q6L723 CAMDR PRELIMINARY; PRT; 132 AA.
AC Q6L723;
DT 05-JUL-2004 (TEMBLrel. 27, Created)
DT 05-JUL-2004 (TEMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TEMBLrel. 27, Last annotation update)
DE B-type natriuretic peptide precursor.
GN Name=BNP;
OS Camelus dromedarius (Dromedary) (Arabian camel).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Tylopoda;
OC Camelidae; Camelus.
OX NCBI_TaxID=9838;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Oeman A.H.K., Yuge S., Hyodo S., Sato S., Maeda S., Marie H.,
RA Caceci T., Birkawa N., Naruse K., Naruse M., Takei Y.;
RT "Molecular identification and immunohistochemical localization of
RT atrial natriuretic peptide in the heart of the dromedary camel
RT (Camelus dromedarius).";
RL Comp. Biochem. Physiol., Part A Mol. Integr. Physiol.
RL 139:417-424 (2004).
DR EMBL; AB127392; BAD21300.1; -; mRNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0005080; P:regulation of blood vessel size; IEA.
DR InterPro; IPR002408; Br_natriurtcpep.
DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00712; NATPEPTIDES.
DR PRODOM; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.

DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Signal; Vasoactive. 26 Potential.
FT SIGNAL 1 26
SQ SEQUENCE 132 AA; 14600 MW; 86B4094542A3E39E CRC64;

Query Match 82.6%; Score 76; DB 2; Length 132;
Best Local Similarity 76.5%; Pred. No. 4.7e-05;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
QY 1 CFGRKMDRISSSSGLGC 17
DB 110 CFGRRLDRIGSLGLGC 126

RESULT 10
ANFB CANFA STANDARD; PRT; 140 AA.
AC P16859;
DT 01-AUG-1990 (Rel. 15, Created)
DT 01-AUG-1990 (Rel. 15, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Natriuretic peptides B precursor [Contains: Gamma-brain natriuretic
DE peptide; Brain natriuretic peptide 34 (BNP-34); Brain natriuretic
DE peptide 29 (BNP-29)].
GN Name=NPB;
OS Canis familiaris (Dog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
OC Canis.
OX NCBI_TaxID=9615;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=90088474; PubMed=2597152;
RA Seilhamer J.J., Arfsten A., Miller J.A., Lundquist P.,
RA Scarborough R.M., Lewicki J.A., Porter J.G.;
RT "Human and canine gene homologs of porcine brain natriuretic
RT peptide.";
RL Biochem. Biophys. Res. Commun. 165:650-658 (1989).
CC -!- FUNCTION: Acts as a cardiac hormone with a variety of biological
CC actions including natriuresis, diuresis, vasorelaxation, and
CC inhibition of renin and aldosterone secretion. It is thought to
CC play a key role in cardiovascular homeostasis. Helps restore the
CC body's salt and water balance. Improves heart function.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- TISSUE SPECIFICITY: Brain and also in atria, but at much lower
CC levels than ANP.
CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; M31777; AAA30832.1; -; Genomic_DNA.
CC FIR; B36736; B36736.00000016538; Canis familiaris.
CC Ensembl; ENSCARG00000016538; Canis familiaris.
CC InterPro; IPR002408; Br_natriurtcpep.
CC InterPro; IPR000663; Natr_peptide.
CC Pfam; PF00212; ANP; 1.
CC PRINTS; PR00712; NATPEPTIDES.
CC PRINTS; PR00710; NATPEPTIDES.
CC PRODOM; PD005617; Natr_peptide; 1.
CC PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Hormone; Signal; Vasoactive.
FT SIGNAL 1 26 Potential.
FT CHAIN 27 140 Gamma-brain natriuretic peptide.
FT PEPTIDE 107 140 Brain natriuretic peptide 34.
FT PEPTIDE 112 140 Brain natriuretic peptide 29.
FT DISULFID 118 134 By similarity.
FT SEQUENCE 140 AA; 14966 MW; 612B86F4D0FD49D9 CRC64;
SQ
Query Match 82.6%; Score 76; DB 1; Length 140;

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Best Local Similarity 76.5%; Pred. No. 5e-05; Mismatches 2; Indels 0; Gaps 0;
Matches 13; Conservative 2;

QY 1 CFGRKMDRISSSSGLGC 17
Db 118 CFGRLDRIGSLSLGLC 134

RESULT 11
Q7T217 ONCMY
ID Q7T217 ONCMY PRELIMINARY; PRT; 146 AA.
AC Q7T217;
DT 01-OCT-2003 (TReMBLrel. 25, Created)
DT 01-OCT-2003 (TReMBLrel. 25, Last sequence update)
DT 01-MAR-2004 (TReMBLrel. 26, Last annotation update)
DE Atrial natriuretic peptide.
GN Name=anp;
OS Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OX NCBI_TaxID=8022;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Inoue K., Russel M.J., Olson K.R., Takei Y.;
RL Submitted (DEC-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; AB076603; BAC77769.1; -; mRNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007582; P:physiological process; IEA.
DR GO; GO:0050880; P:regulation of blood vessel size; IEA.
DR InterPro; IPR002407; At_natriurtcep.
DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00711; ANATPEPTIDE.
DR PRODOM; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Vasoactive.
SQ SEQUENCE 146 AA; 16043 MW; FED2CB3C79121BD0 CRC64;

Query Match 82.6%; Score 76; DB 2; Length 146;
Best Local Similarity 76.5%; Pred. No. 5.2e-05;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 124 CFGARMDRIGTSSGLGC 140

RESULT 12
Q78AW6 SALSA
ID Q78AW6 SALSA PRELIMINARY; PRT; 148 AA.
AC Q78AW6;
DT 05-JUL-2004 (TReMBLrel. 27, Created)
DT 05-JUL-2004 (TReMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TReMBLrel. 27, Last annotation update)
DE Cardiac peptide precursor.
OS Salmo salar (Atlantic salmon).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC Protacanthopterygii; Salmoniformes; Salmonidae; Salmo.
OX NCBI_TaxID=8030;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA MEDLINE=20114377; PubMed=10650955; DOI=10.1210/en.141.2.731;
RX Majalahti-Palviainen T., Hirvonen M., Tervonen V., Ilves M.,
RA Ruskoaho H., Vuolteenaho O.;
RT "Gene structure of a new cardiac peptide hormone: a model for heart-
specific gene expression.";
RN Endocrinology 141:731-740(2000).
[2]
```

```
RP NUCLEOTIDE SEQUENCE.
RA Vuolteenaho O.J.;
RL Submitted (MAY-1998) to the EMBL/GenBank/DBJ databases.
DR EMBL; AJ006421; CAA07023.1; -; Genomic DNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007582; P:physiological process; IEA.
DR GO; GO:0050880; P:regulation of blood vessel size; IEA.
DR InterPro; IPR002407; At_natriurtcep.
DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00711; ANATPEPTIDE.
DR PRODOM; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Signal; Vasoactive.
FT SIGNAL 1 119 Potential.
FT CHAIN 120 148 cardiac peptide.
SQ SEQUENCE 148 AA; 16236 MW; 934985642C25C739 CRC64;

Query Match 82.6%; Score 76; DB 2; Length 148;
Best Local Similarity 76.5%; Pred. No. 5.3e-05;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 126 CFGARMDRIGTSSGLGC 142

RESULT 13
Q9YGVJ SALSA
ID Q9YGVJ SALSA PRELIMINARY; PRT; 152 AA.
AC Q9YGVJ;
DT 01-MAY-1999 (TReMBLrel. 10, Created)
DT 01-MAY-1999 (TReMBLrel. 10, Last sequence update)
DT 01-JUN-2003 (TReMBLrel. 24, Last annotation update)
DE Cardiac hormone.
OS Salmo salar (Atlantic salmon).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC Protacanthopterygii; Salmoniformes; Salmonidae; Salmo.
OX NCBI_TaxID=8030;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Tervonen V., Arjamaa O., Ruskoaho H., Vuolteenaho O.;
RL Submitted (NOV-1998) to the EMBL/GenBank/DBJ databases.
RN [2]

RP NUCLEOTIDE SEQUENCE.
RA Vuolteenaho O.J.;
RL Submitted (SEP-1997) to the EMBL/GenBank/DBJ databases.
DR EMBL; AJ001806; CAA05022.1; -; mRNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007582; P:physiological process; IEA.
DR GO; GO:0050880; P:regulation of blood vessel size; IEA.
DR InterPro; IPR002407; At_natriurtcep.
DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00711; ANATPEPTIDE.
DR PRODOM; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Vasoactive.
FT CHAIN 124 152 cardiac hormone.
SQ SEQUENCE 152 AA; 16740 MW; EID3E38A159CFEEA CRC64;

Query Match 82.6%; Score 76; DB 2; Length 152;
Best Local Similarity 76.5%; Pred. No. 5.4e-05;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
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QY 1 CFCGRMDRISSSSGLGC 17
||| :||| :|||
Db 130 CFCGRMDRIGTSSGLGC 146

RESULT 14
NFNP_PSEPC STANDARD; PRT; 37 AA.
AC P82972;
DT 25-OCT-2004 (Rel. 45, Created)
DT 25-OCT-2004 (Rel. 45, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Natriuretic peptide PNP.
OS Pseudocerastes persicus (Persian horned viper) (False horned viper).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC Viperidae; Viperinae; Pseudocerastes.
OX NCBI_TaxID=47769;
RN [1]
RP PROTEIN SEQUENCE, FUNCTION, SUBUNIT, SUBCELLULAR LOCATION, TISSUE
RP SPECIFICITY, MASS SPECTROMETRY, AND DISULFIDE BOND.
RC TISSUE=Venom;
RX PubMed=14741349; DOI=10.1016/S0014-5793(03)01455-8;
RA Aminiasab M., Elmi M.M., Endlich N., Endlich K., Parekh N.,
RA Naderi-Mansh H., Schaller J., Mostafavi H., Sattler M.,
RA Sarbolouki M.N., Muhle-Goll C.;
RT "Functional and structural characterization of a novel member of the
RT natriuretic family of peptides from the venom of Pseudocerastes
RT persicus";
RL FEBS Lett. 557:104-108(2004).
CC -!- FUNCTION: Increases urine flow and decreases blood pressure when
CC administered to rats by intravenous injection. Inhibits thrombin-
CC induced platelet aggregation. Has a cGMP-stimulating activity.
CC -!- SUBUNIT: Monomer. Binds to the NPR-A receptor.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- TISSUE SPECIFICITY: Expressed by the venom gland.
CC -!- MASS SPECTROMETRY: MW=3941.5; MW_ERR=0.17; METHOD=Electrospray;
CC RANGE=1-37; NOTE=Ref.1.
CC -!- SIMILARITY: Belongs to the natriuretic peptide family.

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CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.

CC GO: GO:0005576; C:extracellular region; IDA.
CC GO: GO:0030146; P:diuresis; IDA.
CC GO: GO:0045776; P:negative regulation of blood pressure; IDA.
CC GO: GO:0009405; P:pathogenesis; IDA.
CC GO: GO:0030828; P:positive regulation of cGMP biosynthesis; IDA.
CC InterPro; IPR002407; At_natriurtcep.
CC InterPro; IPR002408; Br_natriurtcep.
CC InterPro; IPR000663; Natr_peptide.
CC Pfam; PF00212; ANP; 1.
CC PRINTS; PR00712; BNATPEPTIDE.
CC PRINTS; PR00710; NATPEPTIDES.
CC ProDom; PD005107; At_natriurtcep; 1.
CC ProDom; PD005617; Natr_peptide; 1.
CC SMART; SM00183; NAT_PEP; 1.
CC PROSITE; PS00263; NATRIURETIC_PPTIDE; 1.
CC Direct protein sequencing; Toxin; Vasoactive.
FT DISULFID 14 30
SQ SEQUENCE 37 AA; 3944 MW; AD7BE649AD480BA6 CRC64;

Query Match 80.4%; Score 74; DB 1; Length 37;
Best Local Similarity 76.5%; Pred. No. 2.8e-05;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFCGRMDRISSSSGLGC 17
||| :||| :|||
Db 14 CFCGRMDRIGTSSGLGC 30

RESULT 15
Q7LZ09 VIPLE PRELIMINARY; PRT; 38 AA.
AC Q7LZ09;
DT 01-MAR-2004 (TReMBLrel. 26, Created)
DT 01-MAR-2004 (TReMBLrel. 26, Last sequence update)
DT 01-MAR-2004 (TReMBLrel. 26, Last annotation update)
DE Lebetin 2 isoform alpha.
OS Vipera lebetina (Elephant snake) (Leventine viper).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC Viperidae; Viperinae; Macrovipera.
OX NCBI_TaxID=8709;
RN [1]
RP PROTEIN SEQUENCE.
RX MEDLINE=96354866; PubMed=8769304; DOI=10.1016/0014-5793(96)00774-0;
RA Barbouche R., Marzackhi N., Mansuelle P., Krifi M., Fenouillet E.,
RA Rochat H., El Ayeub M.;
RT "Novel anti-platelet aggregation polypeptides from Vipera lebetina
RT venom: isolation and characterization.";
RL FEBS Lett. 392:6-10(1996).

DR PIR; S71381; S71381.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0050880; P:regulation of blood vessel size; IEA.
DR InterPro; IPR002408; Br_natriurtcep.
DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00712; BNATPEPTIDE.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natr_peptide; 1.
DR PROSITE; PS00263; NATRIURETIC_PPTIDE; 1.
KW Vasoactive.

SQ SEQUENCE 38 AA; 3945 MW; 831FA5C9B1B09377 CRC64;

Query Match 80.4%; Score 74; DB 2; Length 38;
Best Local Similarity 76.5%; Pred. No. 2.9e-05;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFCGRMDRISSSSGLGC 17
||| :||| :|||
Db 14 CFCGRMDRIGTSSGLGC 30

RESULT 16
Q4TD23 TETNG PRELIMINARY; PRT; 83 AA.
AC Q4TD23;
DT 13-SEP-2005 (TReMBLrel. 31, Created)
DT 13-SEP-2005 (TReMBLrel. 31, Last sequence update)
DT 13-SEP-2005 (TReMBLrel. 31, Last annotation update)
DE Chromosome undetermined SCAR6568, whole genome shotgun sequence.
DE (Fragment).
GN ORFNames=GSTENG0003028001;
OS Tetraodon nigroviridis (Green puffer)
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
OC Tetraodontidae; Tetraodontidae; Tetraodon.
OX NCBI_TaxID=99883;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Jaillon O., Aury J.M., Brunet F., Petit J.L., Stange-Thomann N.,
RA Mauceli E., Bouneau L., Fischer C., Ozouf-Costaz C., Bernot A.,
RA Nicaud S., Jaffe D., Fisher S., Lutfalla G., Dossat C., Segurens B.,
RA Dasilva C., Salanoubat M., Levy M., Boudet N., Castellano S.,
RA Anthouard V., Jubin C., Castelli V., Katinka M., Vacherie B.,
RA Blemont C., Skalli Z., Cattolico L., Poulain J., De Berardinis V.,
RA Cruaud C., Duprat S., Brottier P., Coutanceau J.P., Gouzy J.,
RA Parra G., Lardier G., Chaplier C., McKernan K.J., McEwan P., Bosak S.,
RA Kellis M., Volff J.N., Guigo R., Zody M.C., Mesirov J.,
RA Lindblad-Toh K., Birren B., Nusbaum C., Kahn D., Robinson-Rechavi M.,

RA Laudet V., Schachter V., Quetier F., Saurin W., Scarpelli C.,
RA Wincker P., Lander E.S., Weissbach J., Roest Crolius H.;
RT "Genome duplication in the teleost fish Tetraodon nigroviridis reveals
RT the early vertebrate proto-karyotype.";
RL Nature 431:946-957(2004).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RG Genoscope; Whitehead Institute Centre for Genome Research;
RL Submitted (FEB-2004) to the EMBL/GenBank/DBJ databases.
CC -1- CAUTION: The sequence shown here is derived from an
CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
CC preliminary data.
DR EMBL; CAE01006568; CAF89209.1; -; Genomic_DNA.
DR InterPro; IPR002408; Br_natriurtcpep.
DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00712; BNATPEPTIDES.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
DR KW Vasoactive.
FT NON TER 83 83
SQ SEQUENCE 83 AA; 9432 MW; 5D020DD1512E2DF6 CRC64;
Query Match 80.4%; Score 74; DB 2; Length 83;
Best Local Similarity 76.5%; Pred. No. 6.5e-05;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
QY 1 CFGRRMDRISSSSLGQC 17
DB 65 CFGRRMDRISSSSLGQC 81
RESULT 17
ANFB_FUGRU
ID ANFB_FUGRU STANDARD; PRT; 133 AA.
AC Q805D7;
DT 05-JUL-2004 (Rel. 44, Created)
DT 05-JUL-2004 (Rel. 44, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Brain natriuretic peptide precursor (B-type natriuretic peptide).
GN Name=BNP;
OS Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC Acanthomorpha; Acanthopterygii; Percormorpha; Tetraodontiformes;
OC Tetraodontidae; Tetraodontidae; Takifugu.
OX NCBI_TaxID=31033;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Heart;
RX PubMed=15072559; DOI=10.1677/jme.0.0320547;
RA Kawakoshi A., Hyodo S., Inoue K., Kobayashi Y., Takei Y.;
RT "Four natriuretic peptides (ANP, BNP, VNP and CNP) coexist in the
RT sturgeon: identification of BNP in fish lineage.";
RL J. Mol. Endocrinol. 32:547-555(2004).
CC -1- FUNCTION: Acts as a cardiac hormone with a variety of biological
CC actions including natriuresis, diuresis, vasorelaxation, and
CC inhibition of renin and aldosterone secretion. It is thought to
CC play a key role in cardiovascular homeostasis. Helps restore the
CC body's salt and water balance. Improves heart function.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- SIMILARITY: Belongs to the natriuretic peptide family.
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC EMBL; AB089934; BAC57070.1; -; mRNA.
DR Ensembl; SINFUG00000135753; Fugu rubripes.

DR InterPro; IPR002408; Br_natriurtcpep.
DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00712; BNATPEPTIDES.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
DR KW Hormone; Signal; Vasoactive.
FT SIGNAL 1 22
FT PROPEP 23 ?
FT PEPTIDE ? 133 Brain natriuretic peptide.
FT DISULFID 108 124 By similarity.
SQ SEQUENCE 133 AA; 14746 MW; FD4541B255A33436 CRC64;
Query Match 80.4%; Score 74; DB 1; Length 133;
Best Local Similarity 76.5%; Pred. No. 0.00011;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
QY 1 CFGRRMDRISSSSLGQC 17
DB 108 CFGRRMDRISSSSLGQC 124
RESULT 18
ANFB_OREMO
ID ANFB_OREMO STANDARD; PRT; 138 AA.
AC Q805E8;
DT 05-JUL-2004 (Rel. 44, Created)
DT 05-JUL-2004 (Rel. 44, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Brain natriuretic peptide precursor (B-type natriuretic peptide).
GN Name=BNP;
OS Oreochromis mossambicus (Mozambique tilapia) (Tilapia mossambica).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC Acanthomorpha; Acanthopterygii; Percormorpha; Perciformes; Labroidae;
OC Cichlidae; African cichlids; Pseudocrenilabrinae; Tilapini;
OC Oreochromis.
OX NCBI_TaxID=8127;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Heart;
RX PubMed=15072558; DOI=10.1677/jme.0.0320547;
RA Kawakoshi A., Hyodo S., Inoue K., Kobayashi Y., Takei Y.;
RT "Four natriuretic peptides (ANP, BNP, VNP and CNP) coexist in the
RT sturgeon: identification of BNP in fish lineage.";
RL J. Mol. Endocrinol. 32:547-555(2004).
CC -1- FUNCTION: Acts as a cardiac hormone with a variety of biological
CC actions including natriuresis, diuresis, vasorelaxation, and
CC inhibition of renin and aldosterone secretion. It is thought to
CC play a key role in cardiovascular homeostasis. Helps restore the
CC body's salt and water balance. Improves heart function.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- SIMILARITY: Belongs to the natriuretic peptide family.
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC EMBL; AB087284; BAC55025.1; -; mRNA.
DR InterPro; IPR002408; Br_natriurtcpep.
DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00712; BNATPEPTIDES.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
DR KW Hormone; Signal; Vasoactive.
FT SIGNAL 1 22 Potential.

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FT PROPEP      23      ?
FT PEPTIDE     111      ? 138 Brain natriuretic peptide.
FT DISULFID    111      127 By similarity.
SQ SEQUENCE    138 AA; 15189 MW; 5A023AB1F4F452FA CRC64;

Query Match      80.4%; Score 74; DB 1; Length 138;
Best Local Similarity 76.5%; Pred. No. 0.00011;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSLGCG 17
    |||||:|||||
Db 111 CFGRKMDRIGSMSSSLGCG 127
    |||||:|||||

RESULT 19
Q7T1Q2 ORYLA
ID Q7T1Q2_ORYLA PRELIMINARY; PRT; 146 AA.
AC Q7T1Q2_
DT 01-OCT-2003 (Tremblrel. 25, Created)
DT 01-OCT-2003 (Tremblrel. 25, Last sequence update)
DT 01-MAR-2004 (Tremblrel. 26, Last annotation update)
DE B-type natriuretic peptide.
GN Name=bnp;
OS Oryzias latipes (Medaka fish) (Japanese ricefish).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC Acanthomorpha; Acanthopterygii; Percomorpha; Atherinomorpha;
OC Belontiiformes; Adrianichthyidae; Oryziinae; Oryzias.
OX NCBI_TaxID=8090;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Heart;
RA Inoue K., Takei Y.;
RL Submitted (JAN-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; AB099700; BAC79151.1; -; mRNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0050880; P:regulation of blood vessel size; IEA.
DR InterPro; IPR002406; C_natriureticp.
DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00713; CNATPEPTIDE.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; Natriuretic_Peptide; 1.
KW Vasoactive.
SQ SEQUENCE 146 AA; 16455 MW; E0EA2C0C70DAD51F CRC64;

Query Match      80.4%; Score 74; DB 2; Length 146;
Best Local Similarity 76.5%; Pred. No. 0.00012;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSLGCG 17
    |||||:|||||
Db 121 CFGRKMDRIGSMSSSLGCG 137
    |||||:|||||

RESULT 20
ANFC ACITR
ID ANFC ACITR STANDARD; PRT; 150 AA.
AC Q76KW6;
DT 25-OCT-2004 (Rel. 45, Created)
DT 25-OCT-2004 (Rel. 45, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE C-type natriuretic peptide precursor.
GN Name=CNP;
OS Acipenser transmontanus (White sturgeon).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Chondrostei; Acipenseriformes; Acipenseridae;
OC Acipenser.
OX NCBI_TaxID=7904;
RN [1]

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RP NUCLEOTIDE SEQUENCE, AND TISSUE SPECIFICITY.
RX PubMed:15072558; DOI=10.1677/jme.0.0320547;
RA Kawakoshi A., Hyodo S., Inoue K., Kobayashi Y., Takei Y.;
RT "Four natriuretic peptides (ANP, BNP, VNP and CNP) coexist in the
RT sturgeon: identification of BNP in fish lineage.";
RL J. Mol. Endocrinol. 32:547-555(2004).
CC -!- FUNCTION: Vaso relaxant activity. Has a cGMP-stimulating activity.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- TISSUE SPECIFICITY: Expressed in brain, but not in atrium or
CC ventricle.
CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
DR EMBL; AB087731; BAD02838.1; -; mRNA.
DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; Natriuretic_Peptide; 1.
KW Hormone; Signal; Vasoactive.
FT SIGNAL 1 31 Potential.
FT PROPEP 32 125 By similarity.
FT PEPTIDE 128 150 C-type natriuretic peptide.
FT DISULFID 134 150 By similarity.
SQ SEQUENCE 150 AA; 15990 MW; D39D9682C35PEC94 CRC64;

Query Match      80.4%; Score 74; DB 1; Length 150;
Best Local Similarity 76.5%; Pred. No. 0.00012;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSLGCG 17
    |||||:|||||
Db 134 CFGRKMDRIGSMSSSLGCG 150
    |||||:|||||

RESULT 21
Q7YZU5 EPTBU
ID Q7YZU5 EPTBU PRELIMINARY; PRT; 162 AA.
AC Q7YZU5;
DT 01-OCT-2003 (Tremblrel. 25, Created)
DT 01-OCT-2003 (Tremblrel. 25, Last sequence update)
DT 01-MAR-2004 (Tremblrel. 26, Last annotation update)
DE Natriuretic peptide.
GN Name=NP;
OS Eptatretus burgeri (Inshore hagfish).
OC Eukaryota; Metazoa; Chordata; Craniata; Hyperotreti; Myxiniiformes;
OC Myxiniidae; Eptatretinae; Eptatretus.
OX NCBI_TaxID=7764;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Kawakoshi A., Hyodo S., Takei Y.;
RL "Hagfish natriuretic peptide precursor mRNA of Eptatretus burgeri.";
RT Submitted (JUL-2002) to the EMBL/GenBank/DBJ databases.
DR EMBL; AB087732; BAC78816.1; -; mRNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007582; P:physiological process; IEA.
DR GO; GO:0050880; P:regulation of blood vessel size; IEA.
DR InterPro; IPR002407; At_natriureticp.
DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00711; ANATPEPTIDE.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
KW Vasoactive.
FT CHAIN 94 161 natriuretic peptide.

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SQ SEQUENCE 162 AA; 18220 MW; F4E866403F1A48F7 CRC64;
Query Match 80.4%; Score 74; DB 2; Length 162;
Best Local Similarity 76.5%; Pred. NO. 0.00013;
Matches 13; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 136 CFGVKMDRIGASTGLGC 152

RESULT 22
Q4SND6_TETNG
ID Q4SND6_TETNG PRELIMINARY; PRT; 25 AA.
AC Q4SND6;
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE Chromosome 8 SCAF14543, whole genome shotgun sequence.
DE (fragment).
GN ORFNames=GSTENG00015340001;
OS Tetraodon nigroviridis (Green puffer).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Neoteleostei;
OC Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
OC Tetraodontidae; Tetraodontidae; Tetraodon.
OX NCBI_TaxID=99883;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Jaillon O., Aury J.M., Brunet F., Petit J.L., Stange-Thomann N.,
RA Mauceli E., Bouneau L., Fischer C., Ozouf-Costaz C., Bernot A.,
RA Nicaut S., Jaffe D., Fisher S., Lutfalla G., Dossat C., Segurens B.,
RA Dasilva C., Salanoubat M., Levy M., Boudet N., Castellano S.,
RA Anthouard V., Jubin C., Castelli V., Katinka M., Vacherie B.,
RA Bionet C., Skalli Z., Cattolico L., Poulain J., De Berardinis V.,
RA Cruaud C., Duprat S., Brottier P., Coutanceau J.P., Gouzy J.,
RA Parra G., Lardier G., Chappie P., McKernan K.J., McEwan P., Bosak S.,
RA Kellis M., Volff J.N., Guigo R., Zody M.C., Mesirov J.,
RA Lindblad-Toh K., Birren B., Nusbaum C., Kahn D., Robinson-Rechavi M.,
RA Laudet V., Schachter V., Quetier F., Saurin W., Scarpelli C.,
RA Winker P., Lander E.S., Weissbach J., Roest Crolius H.,
RT "Genome duplication in the teleost fish Tetraodon nigroviridis reveals
RT the early vertebrate proto-karyotype.";
RL Nature 431:946-957(2004).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RG Genoscope, Whitehead Institute Centre for Genome Research;
RL Submitted (FEB-2004) to the EMBL/GenBank/DBJ databases.
CC -!- CAUTION: The sequence shown here is derived from an
CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
CC preliminary data.
DR EMBL; CAAE01014543; CAF97846.1; -; Genomic_DNA.
DR InterPro; IPR002408; Br_natriurtcpep.
DR PRINTS; PR000663; Natr_peptide.
DR PRINTS; PR00712; BNATPEPTIDES.
DR ProDom; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Vasoactive.
FT CHAIN <1 33 C-type natriuretic peptide/factor active
FT NON_TER 1 1 peptide.
FT NON_TER 33 AA; 3445 MW; C4DE805DF7E762AE CRC64;
SQ SEQUENCE 33 AA; 3445 MW; C4DE805DF7E762AE CRC64;
Query Match 79.3%; Score 73; DB 2; Length 33;
Best Local Similarity 76.5%; Pred. NO. 3.7e-05;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 17 CFGKLDRIKGSMSGLGC 33

RESULT 24
ANFC1_FUGRU
ID ANFC1_FUGRU STANDARD; PRT; 126 AA.
AC Q805D6;
DT 25-OCT-2004 (Rel. 45, Created)
DT 25-OCT-2004 (Rel. 45, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE C-type natriuretic peptide-1 precursor.
GN Name=cnp-1;
OS Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
OC Tetraodontidae; Tetraodontidae; Takifugu.
OX NCBI_TaxID=31033;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Brain;
RA Inoue K., Naruse K., Yamagami S., Mitani H., Suzuki N., Takei Y.;
RX PubMed=12893874; DOI=10.1073/pnas.1632368100;
RT "Four functionally distinct C-type natriuretic peptides found in fish
RT reveal evolutionary history of the natriuretic peptide system.";
RL Proc. Natl. Acad. Sci. U.S.A. 100:10079-10084(2003).
CC -!- FUNCTION: Exhibits natriuretic and vasodepressant activity. Has
CC CGMP-stimulating activity. May help to regulate body fluid

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PRINTS; PRO0713; CNATPEPTIDES.
PRINTS; PRO0710; NATPEPTIDES.
ProDom; PD005617; Natr_peptide; 1.
SMART; SM00183; NAT_PEP; 1.
PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
Hormone; Signal; Vasoactive.
T SIGNAL 1 23 Potential.
T PROPEP 24 72 Potential.
T T PEPTIDE 74 126 CNP-53 (By similarity).
T T PEPTIDE 98 126 CNP-29 (By similarity).
T T PEPTIDE 105 126 CNP-22.
T T DISULFID 110 126 By similarity.
Q SEQUENCE 126 AA; 13291 MW; 31EDF80FA98DD77 CRC64;

Query Match 79.3%; Score 73; DB 1; Length 126;
Best Local Similarity 76.5%; Pred. No. 0.00015;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Y 1 CFGRWKDRISSSGLGC 17
|||:|||||
b 110 CFGCLKDRIGSMGLGC 126

RESULT 26

NFC_HUMAN

D ANFC_HUMAN STANDARD; PRT; 126 AA.
C C P23582;
T 01-NOV-1991 (Rel. 20, Created)
T 01-NOV-1991 (Rel. 20, Last sequence update)
T 10-MAY-2005 (Rel. 47, Last annotation update)
T C-type natriuretic peptide precursor [Contains: CNP-22; CNP-29; CNP-53].
E Name=NPPC; Synonyms=CNP2;
E Homo sapiens (Human).
S Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
C Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
C Homo.
C NCBI_TaxID=9606;
[1]
N NUCLEOTIDE SEQUENCE.
P MEDLINE-91207363; PubMed=2018508;
X Tawaragi Y., Fuchimura K., Tanaka S., Minamino N., Kangawa K.,
X Matsuo H.;
T "Gene and precursor structures of human C-type natriuretic peptide.";
T Biochem. Biophys. Res. Commun. 175:645-651(1991).
[2]
N NUCLEOTIDE SEQUENCE.
P MEDLINE-92275775; PubMed=1339402;
X Ogawa Y., Nakao K., Nakagawa O., Komatsu Y., Hosoda K., Suga S.,
X Arai H., Nagata K., Yoshida N., Imura H.;
T "Human C-type natriuretic peptide. Characterization of the gene and
T peptide";
T Hypertension 19:809-813(1992).
[3]
N NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
P MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
X Krausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
X Klausner R.D., Colling F.S., Wagner L., Shenmen C.M., Schuler G.D.,
X Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
X Hopkins R.F., Jordan H., Moore I., Max S.I., Wang J., Hsieh F.,
X Datchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
X Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
X Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
X Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
X Boak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
X Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
X Vallon D.K., Munz D.M., Sodergren E.J., Lu X., Gibbs R.A.,
X Flaherty J., Helton E., Kettaman M., Madan A., Rodrigues S., Sanchez A.,
X Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
X Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
X Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
X Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalius D.E.,
X Schnerch A., Scheln J.E., Jones S.J.M., Marra M.A.,

RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN [4]
 RP PROTEIN SEQUENCE OF 98-126.
 RX MEDLINE=93112033; PubMed=1472040;
 RA Ishizaka Y., Kangawa K., Minamino N., Ishii K., Takano S., Eto T.,
 RA Matsuo H.;
 RT "Isolation and identification of C-type natriuretic peptide in human
 RT monocytic cell line, THP-1.";
 RL Biochem. Biophys. Res. Commun. 189:697-704(1992).
 CC -!- FUNCTION: Vasorelaxant activity. Has a CGMP-stimulating activity.
 CC -!- SUBCELLULAR LOCATION: Secreted.
 CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
 CC -----
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 CC -----
 DR EMBL; M64710; AAA35703.1; -; Genomic DNA.
 DR EMBL; D90337; BAA14351.1; -; Genomic DNA.
 DR EMBL; BC069120; AAH69120.1; -; mRNA.
 DR PIR; JT0567; ANHUC.
 DR FDB; IJDP; X-ray; H=105-126.
 DR Ensembl; ENSG00000163273; Homo sapiens.
 DR HGNC; HGNC:7941; NPPC.
 DR MIM; 600296; -;
 DR GO; GO:0005576; C:extracellular region; NAS.
 DR GO; GO:0008217; P:regulation of blood pressure; NAS.
 DR GO; GO:0019229; P:regulation of vasoconstriction; NAS.
 DR InterPro; IPR002406; C_natriureticpep.
 DR InterPro; IPR000663; Natri_peptide.
 DR Pfam; PF00212; ANP; 1.
 DR PRINTS; PR00713; CNATPEPTIDE.
 DR PRINTS; PR00710; NATPEPTIDES.
 DR ProDom; PD005617; Natri_peptide; 1.
 DR SMART; SM00183; NAT_PEP; 1.
 DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
 KW 3D-structure; Direct protein sequencing; Hormone; Polymorphism;
 KW Signal; Vasoactive.
 FT SIGNAL 1 23 Potential.
 FT PROPEP 24 72
 FT PEPTIDE 74 126 CNP-53.
 FT PEPTIDE 98 126 CNP-29.
 FT PEPTIDE 105 126 CNP-22.
 FT PEPTIDE 110 126 By similarity.
 FT DISULFID 82 82 R -> Q (in dbSNP:5267).
 FT VARIANT 82 82 /FTID=VAR 014583.
 FT SEQUENCE 126 AA; 13246 MW; 58F6E657868F9A2D CRC64;
 Query Match 79.3%; Score 73; DB 1; Length 126;
 Best Local Similarity 76.5%; Pred. No. 0.00015;
 Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 DB 110 CFGLKLDRIGSMGLGC 126
 RESULT 27
 ANFC MOUSE
 ID ANFC MOUSE STANDARD; PRT; 126 AA.
 AC Q61839;
 DT 01-NOV-1997 (Rel. 35, Created)
 DT 01-NOV-1997 (Rel. 35, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE C-type natriuretic peptide precursor [Contains: CNP-22; CNP-29; CNP-53].
 DE Name=Nppc; Synonyms=Cnp;
 GN Mus musculus (Mouse).
 OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muroidea; Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX STRAIN=BALB/c;
 RX MEDLINE=95213034; PubMed=7698765;
 RA Ogawa Y., Itoh H., Yoshitake Y., Inoue M., Yoshimasa T., Serikawa T.,
 RA Nakao K.;
 RT "Molecular cloning and chromosomal assignment of the mouse C-type
 RT natriuretic peptide (CNP) gene (Nppc): comparison with the human CNP
 RT gene (NPPC).";
 RL Genomics 24:383-387(1994).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RX STRAIN=129/Sv;
 RX MEDLINE=97053441; PubMed=8897953;
 RA Huang H., Acuff C.G., Steinhilber M.E.;
 RT "Isolation, mapping, and regulated expression of the gene encoding
 RT mouse C-type natriuretic peptide.";
 RL Am. J. Physiol. 271:H1565-H1575(1996).
 CC -!- FUNCTION: Vasorelaxant activity. Has a CGMP-stimulating activity.
 CC -!- SUBCELLULAR LOCATION: Secreted.
 CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
 CC -----
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 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC -----
 DR EMBL; D28873; BAA06028.1; -; Genomic DNA.
 DR EMBL; U62939; AAB61717.1; -; Genomic DNA.
 DR PIR; A55688; A55688.
 DR Ensembl; ENSMUSG0000026241; Mus musculus.
 DR MGI; MGI:97369; Nppc.
 DR GO; GO:0005615; C:extracellular space; TAS.
 DR GO; GO:0005184; F:neuropeptide hormone activity; TAS.
 DR GO; GO:0005102; F:receptor binding; IDA.
 DR GO; GO:0006182; P:cGMP biosynthesis; IDA.
 DR InterPro; IPR002406; C_natriureticpep.
 DR InterPro; IPR000663; Natri_peptide.
 DR Pfam; PF00212; ANP; 1.
 DR PRINTS; PR00713; CNATPEPTIDE.
 DR PRINTS; PR00710; NATPEPTIDES.
 DR ProDom; PD005617; Natri_peptide; 1.
 DR SMART; SM00183; NAT_PEP; 1.
 DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
 KW Hormone; Signal; Vasoactive.
 FT SIGNAL 1 23 Potential.
 FT PROPEP 24 72 CNP-53 (By similarity).
 FT PEPTIDE 74 126 CNP-29 (By similarity).
 FT PEPTIDE 98 126 CNP-22.
 FT PEPTIDE 105 126 By similarity.
 FT DISULFID 110 126
 FT SEQUENCE 126 AA; 13320 MW; 8F65B1C4B82FOACB CRC64;
 Query Match 79.3%; Score 73; DB 1; Length 126;
 Best Local Similarity 76.5%; Pred. No. 0.00015;
 Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 DB 110 CFGLKLDRIGSMGLGC 126
 RESULT 28.
 ANFC PIG
 ID ANFC PIG STANDARD; PRT; 126 AA.
 AC P18104; P21806;
 DT 01-NOV-1990 (Rel. 16, Created)
 DT 01-AUG-1991 (Rel. 19, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)

C-type natriuretic peptide precursor [Contains: CNP-22; CNP-29; CNP-53].
Name=NPPC; Synonyms=CNP;
Sus scrofa (Pig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
Sus.
NCBI_TaxID=9823;
[1]
NUCLEOTIDE SEQUENCE.
MEDLINE=91054475; PubMed=2146957;
Tawaragi Y., Fuchimura K., Nakazato H., Tanaka S., Minamino N.,
Kangawa K., Matsuo H.;
"Gene and precursor structure of porcine C-type natriuretic peptide.";
Biochem. Biophys. Res. Commun. 172:627-632(1990).
[2]
PROTEIN SEQUENCE OF 74-126.
TISSUE=Brain;
RX MEDLINE=90343827; PubMed=2383278;
Minamino N., Kangawa K., Matsuo H.;
"N-terminally extended form of C-type natriuretic peptide (CNP-53)
identified in porcine brain.";
Biochem. Biophys. Res. Commun. 170:973-979(1990).
[3]
PROTEIN SEQUENCE OF 105-126.
TISSUE=Brain;
RX MEDLINE=90241265; PubMed=2139780;
Sudo T., Minamino N., Kangawa K., Matsuo H.;
"C-type natriuretic peptide (CNP): a new member of natriuretic peptide
family identified in porcine brain.";
Biochem. Biophys. Res. Commun. 168:863-870(1990).
CC -!- FUNCTION: Vasorelaxant activity. Has a cGMP-stimulating activity.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
CC
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between the Swiss Institute of Bioinformatics and the EMBL outstation -
the European Bioinformatics Institute. There are no restrictions on its
use as long as its content is in no way modified and this statement is not
removed.
CC
CC EMBL; M64758; AAA31018.1; -, Genomic_DNA.
CC FIR; A36155; A36155.
CC InterPro; IPR002406; C_natriurtocpep.
CC Pfam; PF00212; ANP; 1.
CC PRINTS; PR00713; CNATPEPTIDE.
CC PRINTS; PR00710; NATPEPTIDES.
CC ProDom; PD005617; Natr_peptide; 1.
CC SMART; SM00183; NAT_PEP; 1.
CC PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
CC Direct protein sequencing; Hormone; Signal; Vasoactive.
FT SIGNAL 1 23 Potential.
FT PROPEP 24 72
FT PEPTIDE 74 126 CNP-53.
FT PEPTIDE 98 126 CNP-29. (By similarity).
FT PEPTIDE 105 126 CNP-22.
FT DISULFID 110 126
FT SEQUENCE 126 AA; E2474B2D4AABF4DD CRC64;
SQ
Query Match 79.3%; Score 73; DB 1; Length 126;
Best Local Similarity 76.5%; Pred. No. 0.00015;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
QY 1 CFGRKWDRISSSSGLGC 17
Db 110 CFGLKLDRIIGMSGLGC 126
RESULT 29
ANFC RAT
ID _ANFC RAT PRT; 126 AA.
AC P55207;

01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
10-MAY-2005 (Rel. 47, Last annotation update)
C-type natriuretic peptide precursor [Contains: CNP-22; CNP-29; CNP-53].
Name=Nppc; Synonyms=Cnp;
GN Rattus norvegicus (Rat).
OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Eumarchontoglires; Glires; Rodentia; Sciurognathi;
OC Murioidea; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=91092420; PubMed=1702395; DOI=10.1016/0014-5793(90)80544-S;
RA Kojima M., Minamino N., Kangawa K., Matsuo H.;
"Cloning and sequence analysis of a cDNA encoding a precursor for rat
C-type natriuretic peptide (CNP).";
FEBS Lett. 276:209-213(1990).
RL
CC -!- FUNCTION: Vasorelaxant activity. Has a cGMP-stimulating activity.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- TISSUE SPECIFICITY: Expressed exclusively in brain.
CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
CC
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removed.
CC
CC EMBL; D90219; BAA14250.1; -, mRNA.
CC FIR; S12988; S12988.
CC Ensembl; ENSRNOG0000018854; Rattus norvegicus.
CC RGD; 620850; Nppc.
CC InterPro; IPR002406; C_natriurtocpep.
CC PRINTS; PR00713; CNATPEPTIDE.
CC PRINTS; PR00710; NATPEPTIDES.
CC ProDom; PD005617; Natr_peptide; 1.
CC SMART; SM00183; NAT_PEP; 1.
CC PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
CC Hormone; Signal; Vasoactive.
FT SIGNAL 1 23 Potential.
FT PROPEP 24 72
FT PEPTIDE 74 126 CNP-53.
FT PEPTIDE 98 126 CNP-29. (By similarity).
FT PEPTIDE 105 126 CNP-22.
FT DISULFID 110 126 By similarity.
FT SEQUENCE 126 AA; 13314 MW; 0957A0DB58C82E08 CRC64;
SQ
Query Match 79.3%; Score 73; DB 1; Length 126;
Best Local Similarity 76.5%; Pred. No. 0.00015;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
QY 1 CFGRKWDRISSSSGLGC 17
Db 110 CFGLKLDRIIGMSGLGC 126
RESULT 30
ANFC SHEEP
ID _ANFC SHEEP STANDARD; PRT; 126 AA.
AC P56283;
DT 15-JUL-1998 (Rel. 36, Created)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE C-type natriuretic peptide precursor [Contains: CNP-22; CNP-29; CNP-53].
DE
GN Name=NPPC; Synonyms=CNP;
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Caprinae; Ovis.

```

OX NCBI_TaxID=9940;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=99236261; PubMed=10219521; DOI=10.1016/S0739-7240(99)00005-3;
RA Aitken G.D., Raizis A.M., Yandle T.G., George P.M., Espiner E.A.,
RA Cameron V.A.;
RT "The characterization of ovine genes for atrial, brain, and C-type
RT natriuretic peptides.";
RL Domest. Anim. Endocrinol. 16:115-121(1999).
CC -!- FUNCTION: Vasoconstrictant activity. Has a cAMP-stimulating activity.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
CC -----
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CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
DR EMBL; AF073467; AAB92261.1; -, Genomic_DNA.
DR InterPro; IPR002406; C_natriurtcpep.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00713; CNATPEPTIDE.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Hormone; Signal; Vasoactive.
FT SIGNAL 1 23 Potential.
FT PROPEP 24 72 Potential.
FT PEPTIDE 74 126 CNP-53 (By similarity).
FT PEPTIDE 98 126 CNP-29 (By similarity).
FT PEPTIDE 105 126 CNP-22.
FT DISULFID 110 126 By similarity.
SQ SEQUENCE 126 AA; 13317 MW; 83C21B3C49A8F18B CRC64;

Query Match 79.3%; Score 73; DB 1; Length 126;
Best Local Similarity 76.5%; Pred. No. 0.00015;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

OY 1 CFCRKMDRISSSSGLGC 17
DB 110 CFCGLKLDRIKSGMSGLGC 126

RESULT 31
O4ZG41 HUMAN
AC Q4ZG41;
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DE Hypothetical protein NPFC.
GN Name=NPFC;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catearrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Kozlowski A., Spalding L., Tomlinson C.;
RT "The sequence of Homo sapiens BAC clone RP11-52C8.";
RL Submitted (NOV-1999) to the EMBL/GenBank/DBJ databases.
RN [2]
RP NUCLEOTIDE SEQUENCE.
RA Waterston R.H.;
RL Submitted (JAN-2002) to the EMBL/GenBank/DBJ databases.
RN [3]
RP NUCLEOTIDE SEQUENCE.
RA Waterston R.;
RL Submitted (FEB-2002) to the EMBL/GenBank/DBJ databases.

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[4]
RN RP NUCLEOTIDE SEQUENCE.
RA Wilson R.K.;
RL Submitted (APR-2005) to the EMBL/GenBank/DBJ databases.
DR EMBL; AC013435; AAX8912.1; -, Genomic_DNA.
DR InterPro; IPR002406; C_natriurtcpep.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00713; CNATPEPTIDE.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Hypothetical protein; Vasoactive.
SQ SEQUENCE 126 AA; 13246 MW; 58F6E657868F9A2D CRC64;

Query Match 79.3%; Score 73; DB 2; Length 126;
Best Local Similarity 76.5%; Pred. No. 0.00015;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

OY 1 CFCRKMDRISSSSGLGC 17
DB 110 CFCGLKLDRIKSGMSGLGC 126

RESULT 32
Q544K5 MOUSE
ID Q544K5 MOUSE PRELIMINARY; PRT; 126 AA.
AC Q544K5;
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DE 16 days neonate cerebellum cDNA, RIKEN full-length enriched library,
DE clone:9630044D15 product:natriuretic peptide type C, full insert
DE sequence.
GN Name=Nppc;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=C57BL/6J; TISSUE=Cerebellum;
RX MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
RA Carninci P., Hayashizaki Y.;
RT "High-efficiency full-length cDNA cloning.";
RL Meth. Enzymol. 303:19-44(1999).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=C57BL/6J; TISSUE=Cerebellum;
RX MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
RA Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Fletschmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyndone P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Suzuki H., Toyooka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA Hayashizaki Y.;
RT "Functional annotation of a full-length mouse cDNA collection.";
RL Nature 409:685-690(2001).
RN [3]

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RP NUCLEOTIDE SEQUENCE.
RC STRAIN=C57BL/6J; TISSUE=Cerebellum; DOI=10.1038/nature01266;
RX MEDLINE=22354683; PubMed=12466851; DOI=10.1038/nature01266;
RA Okazaki Y., Furuno M., Kasukawa T., Adachi J., Bono H., Kondo S.,
RA Nikaio I., Furuno M., Saito R., Suzuki H., Yamanaka I., Kiyosawa H.,
RA Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Schonbach C., Gojohori T.,
RA Baldarelli R., Hill D.P., Bult C., Hume D.A., Quackenbush J.,
RA Schriml L.M., Kanapin A., Matsuda H., Batalov S., Beisel K.W.,
RA Blake J.A., Bradt D., Brusic V., Chothia C., Corbani L.E., Cousins S.,
RA Dalla E., Dragani T.A., Fletcher C.F., Forrest A., Frazer K.S.,
RA Gaasterland T., Gariboldi M., Gissi C., Godzik A., Gough J.,
RA Grimmond S., Gustincich S., Hirokawa N., Jackson I.J., Jarvis E.D.,
RA Kanai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,
RA Konagaya A., Kurochkin I.V., Lee Y., Lenhard B., Lyons P.A.,
RA Maglott D.R., Maltais L., Marchionni L., McKenzie L., Miki H.,
RA Nagashima T., Numata K., Okido T., Pavan W.J., Perte G., Pesole G.,
RA Petrovsky N., Pillai R., Pontius J.U., Qi D., Ramachandran S.,
RA Ravasi T., Reed J.C., Reed D.J., Reid J., Ring B.Z., Ringwald M.,
RA Sandelin A., Schneider C., Semple C.A., Setou M., Shimada K.,
RA Sultana R., Takenaka Y., Taylor M.S., Teasdale R.D., Tomita M.,
RA Verdado R., Wagner L., Wahlestedt C., Wang Y., Watanabe Y., Wells C.,
RA Wilming L.G., Wyshaw-Boris A., Yanagisawa M., Yang I., Yang L.,
RA Yuan Z., Zavalon M., Zhu Y., Zimmer A., Carninci P., Hayatsu N.,
RA Hirozane-Kishikawa T., Konno H., Nakamura M., Sakazume N., Sato K.,
RA Shiraki T., Waki K., Kawai J., Aizawa K., Arakawa T., Fukuda S.,
RA Hara A., Hashizume W., Imotani K., Ishii Y., Itoh M., Kagawa I.,
RA Miyazaki A., Sakai K., Sasaki D., Shibata K., Shingawa A.,
RA Yasunishi A., Yoshino M., Waterston R., Lander E.S., Rogers J.,
RA Birney E., Hayashizaki Y.;
RT "Analysis of the mouse transcriptome based on functional annotation of
RT 60,770 full-length cDNAs";
RL Nature 420:563-573 (2002).
RN [4]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=C57BL/6J; TISSUE=Cerebellum;
RX MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
RA Carninci P., Shibata Y., Hayatsu M., Sugahara Y., Shibata K., Itoh M.,
RA Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
RT "Normalization and subtraction of cap-trapper-selected cDNAs to
RT prepare full-length cDNA libraries for rapid discovery of new genes.";
RL Genome Res. 10:1617-1630 (2000).
RN [5]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=C57BL/6J; TISSUE=Cerebellum;
RX MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
RA Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
RA Konno H., Akiyama J., Nishi K., Kitsuai T., Tashiro H., Itoh M.,
RA Sumi N., Ishii Y., Nakamura S., Hazama M., Nishimi T., Harada A.,
RA Yamanoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,
RA Fujiwaka S., Inoue K., Togawa Y., Izawa M., Ohara E., Watanishi M.,
RA Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
RA Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;
RT "RIKEN integrated sequence analysis (RISA) system-384-format
RT sequencing pipeline with 384 multicapillary sequencer.";
RL Genome Res. 10:1757-1771 (2000).
RN [6]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=C57BL/6J; TISSUE=Cerebellum;
RA Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P.,
RA Fukuda S., Furuno M., Hanagaki T., Hara A., Hashizume W.,
RA Hayashida K., Hayatsu N., Hiramoto K., Hiraoka T., Hirozane T.,
RA Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kasukawa T.,
RA Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,
RA Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,
RA Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,
RA Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H.,
RA Sasaki D., Shibata K., Shingawa A., Shiraki T., Sogabe Y., Tagami M.,
RA Tagawa A., Takahashi F., Takaku-Akashira S., Takeda Y., Tanaka T.,
RA Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;
RL Submitted (JUL-2001) to the EMBL/GenBank/DBJ databases.
RL ENBL: AK036176; BAC29333.1; -; mRNA.
DR MGI: 197369; Npcc.
DR GO: GO:0005615; C:extracellular space; TAS.
DR GO: GO:0005184; F:neuropeptide hormone activity; TAS.
DR GO: GO:0005102; F:receptor binding; IDA.
DR GO: GO:0006182; P:GMP biosynthesis; IDA.
KW Vasoactive.
SQ SEQUENCE 126 AA; 13320 MW; 8F65B1C4E82F0ACB CRC64;
Query Match 79.3%; Score 73; DB 2; Length 126;
Best Local Similarity 76.5%; Pred. No. 0.00015;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
QY 1 CFGRKMDRISSSSGLGC 17
DB 110 CFGLKLDRISSSGLGC 126
RESULT 33
ANFCL ONCMY STANDARD; PRT; 131 AA.
AC Q8AXR3;
DT 25-OCT-2004 (Rel. 45, Created)
DT 25-OCT-2004 (Rel. 45, Last sequence update)
DE 10-MAY-2005 (Rel. 47, Last annotation update)
DE C-type natriuretic peptide I precursor [CNP-22 I].
GN Name=cnp-1;
OS Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OX NCBI_TaxID=8022;
RN [1]
RP NUCLEOTIDE SEQUENCE, FUNCTION, TISSUE SPECIFICITY, AND SYNTHESIS.
RC TISSUE=Brain; DOI=10.1016/S0016-6480(02)00591-9;
RX PubMed=12568796;
RA Inoue K., Russell M.J., Olson K.R., Takei Y.;
RT "C-type natriuretic peptide of rainbow trout (Oncorhynchus mykiss):
RT primary structure and vasorelaxant activities.";
RL Gen. Comp. Endocrinol. 130:185-192 (2003).
CC -!- FUNCTION: Exhibits natriuretic and vasodepressant activity. Has a
CC CGMP-stimulating activity.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- TISSUE SPECIFICITY: Expressed in brain and to a low extent in
CC atrium.
CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC EMBL; AB076603; BAC44842.1; -; mRNA.
DR InterPro; IPR002406; C_natriurtcpep.
DR InterPro; IPR000663; Natri_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00713; CNATPEPTIDE.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natri_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Hormone; Signal; Vasoactive.
FT SIGNAL 1 22 Potential.
FT PROPEP 23 107 By similarity.
FT PEPTIDE 110 131 C-type natriuretic peptide I.
FT DISULFID 115 131 By similarity.
SQ SEQUENCE 131 AA; 14462 MW; 3A98A2CB78A4F1C3 CRC64;
Query Match 79.3%; Score 73; DB 1; Length 131;
Best Local Similarity 76.5%; Pred. No. 0.00016;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
QY 1 CFGRKMDRISSSSGLGC 17
DB 115 CFGLKLDRISSSGLGC 131
```



```

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC Protacanthopterygii; Teleostei; Salmoniformes; Salmonidae; Oncorhynchus.
RN NCBI_TaxID=8022;
[1] NUCLEOTIDE SEQUENCE, AND TISSUE SPECIFICITY.
RP TISSUE=Brain;
RC PubMed=12586796; DOI=10.1016/S0016-6480(02)00591-9;
RX Inoue K., Russell M.J., Olson K.R., Takei Y.;
RA "C-type natriuretic peptide of rainbow trout (Oncorhynchus mykiss):
RT primary structure and vasorelaxant activities.";
RL Gen. Comp. Endocrinol. 130:185-192(2003)
CC -!- FUNCTION: Exhibits natriuretic and vasodepressor activity. Has a
CC CGMP-stimulating activity (by similarity).
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- TISSUE SPECIFICITY: Expressed in brain and to a low extent in
CC atrium.
CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
DR EMBL; AB076602; BAC44843.1; -; mRNA.
DR InterPro; IPR002406; C_natriurtcpep.
DR InterPro; IPR000663; Natri_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00713; CNATPEPTIDE.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natri_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Hormone; Signal; Vasoactive.
FT SIGNAL 1 22 Potential.
FT PROPEP 23 107 By similarity.
FT PEPTIDE 110 131 C-type natriuretic peptide II.
FT DISULFID 115 131 By similarity.
SQ SEQUENCE 131 AA; 14472 MW; 436CF382B326A08D CRC64;

Query Match 79.3%; Score 73; DB 1; Length 131;
Best Local Similarity 76.5%; Pred. No. 0.00016;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSGLGC 17
Db 115 CFGLKLDRIKSGSLGC 131

RESULT 36
Q805E7 OREMO
ID Q805E7 OREMO PRELIMINARY; PRT; 131 AA.
AC Q805E7;
DT 01-JUN-2003 (TrEMBLrel. 24, Created)
DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE C-type natriuretic peptide.
GN Name=cnp;
OS Oreochromis mossambicus (Mozambique tilapia) (Tilapia mossambica).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidae;
OC Cichlidae; African cichlids; Pseudocrenilabrinae; Tilapiini;
OC Oreochromis.
OX NCBI_TaxID=8127;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Brain;
RA Inoue K., Takei Y.;
RL Submitted (JUL-2002) to the EMBL/GenBank/DBJ databases.
DR EMBL; AB087285; BAC55026.1; -; mRNA.
DR GO; GO:0005576; C:extracellular region; IEA.

```

DR GO: GO:0005179; F.hormone activity; IEA.
 DR GO: GO:0050880; P:regulation of blood vessel size; IEA.
 DR InterPro; IPR002408; Br_natriurtcpep.
 DR InterPro; IPR002406; C_natriurtcpep.
 DR InterPro; IPR000663; Natr_peptide.
 DR Pfam; PF00212; ANP; 1.
 DR PRINTS; PR00712; BNATPEPTIDE.
 DR PRINTS; PR00713; CNATPEPTIDES.
 DR PRINTS; PR00710; NATPEPTIDES.
 DR ProDom; PD005617; Natr_peptide; 1.
 DR SMART; SM00183; NAT_PEP; 1.
 DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
 KW Vasoactive.
 SQ SEQUENCE 131 AA; 14601 MW; F9DCBEBE28CC0E7C CRC64;

Query Match 79.3%; Score 73; DB 2; Length 131;
 Best Local Similarity 76.5%; Pred. No. 0.00016;
 Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 |||:|||||
 Db 115 CFGLKLDRIKSGMSGLGC 131

RESULT 37

Q5Y820 XENLA PRELIMINARY; PRT; 137 AA.
 AC Q5Y820;
 DT 25-OCT-2004 (TrEMBLrel. 28, Created)
 DT 25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
 DT 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
 DE Name=Nppb;
 GN Name=Nppb;
 OS Xenopus laevis (African clawed frog).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipidae;
 OC Xenopodinae; Xenopus; Xenopus.
 OX NCBI_TaxID=8355;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX PubMed=15736168; DOI=10.1002/dvdy.20274;
 RA Smith S.J., Ataliotis P., Kotecha S., Towers N., Sparrow D.B.,
 RA Mohun T.J.;
 RT "The MLCiv gene provides a transgenic marker of myocardium formation
 RT within developing chambers of the Xenopus heart.";
 RL Dev. Dyn. 232:1003-1012(2005).
 DR EMBL; AY660659; AAU88199.1; -; mRNA.
 DR GO: GO:0005576; C:extracellular region; IEA.
 DR GO: GO:0005179; F:hormone activity; IEA.
 DR GO: GO:0050880; P:regulation of blood vessel size; IEA.
 DR InterPro; IPR002408; Br_natriurtcpep.
 DR Pfam; PF00212; ANP; 1.
 DR PRINTS; PR00712; BNATPEPTIDE.
 DR PRINTS; PR00710; NATPEPTIDES.
 DR ProDom; PD005617; Natr_peptide; 1.
 DR SMART; SM00183; NAT_PEP; 1.
 DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
 KW Vasoactive.
 SQ SEQUENCE 137 AA; 15380 MW; 0F7394ACCCBB99EA CRC64;

Query Match 79.3%; Score 73; DB 2; Length 137;
 Best Local Similarity 70.6%; Pred. No. 0.00016;
 Matches 12; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 |||:|||||
 Db 115 CFGRIDRIDLKSGMGC 131

RESULT 38

Q4T953 TETNG PRELIMINARY; PRT; 138 AA.
 ID Q4T953_TETNG

AC Q4T953;
 DT 13-SEP-2005 (TrEMBLrel. 31, Created)
 DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
 DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
 DE Chromosome undetermined SCAF7638, whole genome shotgun sequence.
 DE (Fragment).
 DE ORFNames=GSTENG0004914001;
 OS Tetraodon nigroviridis (Green puffer).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
 OC Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
 OC Tetraodontidae; Tetraodontidae; Tetraodon.
 OX NCBI_TaxID=99883;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA Jallion O., Aury J.M., Brunet F., Petit J.L., Stange-Thomann N.,
 RA Mauceli E., Bouneau L., Fischer C., Ozouf-Costaz C., Bernot A.,
 RA Nicaud S., Jaffe D., Fisher S., Lutfalla G., Dossat C., Segurens B.,
 RA Dasilva C., Salanoubat M., Levy M., Boudet N., Castellano S.,
 RA Anthouard V., Jubin C., Castelli V., Katinka M., Vacherie B.,
 RA Biemont C., Skalli Z., Cattolico L., Poulain J., De Berardinis V.,
 RA Cruaud C., Duprat S., Brottier P., Contanceau J.P., Gouzy J.,
 RA Parra G., Lardier G., Chapple C., McKernan K.J., McEwan P., Bosak S.,
 RA Kellis M., Wolff J.N., Guigo R., Zody M.C., Mesirov J.,
 RA Lindblad-Toh K., Birren B., Nusbaum C., Kahn D., Robinson-Rechavi M.,
 RA Laudet V., Schachter V., Quetier F., Saurin W., Scarpelli C.,
 RA Wincker P., Lander E.S., Weissbach J., Roest Crolius H.,
 RT "Genome duplication in the teleost fish Tetraodon nigroviridis reveals
 RL the early vertebrate proto-karyotype.";
 RL Nature 431:946-957(2004).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RG Genoscope, Whitehead Institute Centre for Genome Research;
 RL Submitted (FEB-2004) to the EMBL/GenBank/DBJ databases.
 CC -!- CAUTION: The sequence shown here is derived from an
 CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
 CC preliminary data.
 DR EMBL; CAAG01007638; CAF90579.1; -; Genomic_DNA.
 DR InterPro; IPR002408; Br_natriurtcpep.
 DR Pfam; PF00212; ANP; 1.
 DR PRINTS; PR00712; BNATPEPTIDE.
 DR PRINTS; PR00710; NATPEPTIDES.
 DR ProDom; PD005617; Natr_peptide; 1.
 DR SMART; SM00183; NAT_PEP; 1.
 DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
 KW Vasoactive.
 FT NON_TER 138 138
 SQ SEQUENCE 138 AA; 15212 MW; E244D7D6F9BE3BF4 CRC64;
 Query Match 79.3%; Score 73; DB 2; Length 138;
 Best Local Similarity 70.6%; Pred. No. 0.00017;
 Matches 12; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 |||:|||||
 Db 117 CFGRMDRIGNASGLGC 133

RESULT 39
 ANF_FUGRU STANDARD; PRT; 139 AA.
 ID ANF_FUGRU
 AC Q805D8;
 DT 05-JUL-2004 (Rel. 44, Created)
 DT 05-JUL-2004 (Rel. 44, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Atrial natriuretic factor precursor (ANF) (Atrial natriuretic peptide)
 DE (ANP) (Prepronatriodilatin).
 DE Name=ANP;
 OS Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
 OC Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;

OC Tetradontidae; Tetradontidae; Takifugu.
 OX NCBI_TaxID=31033;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC TISSUE=Heart;
 RA PubMed=15072558; DOI=10.1677/jme.0.0320547;
 RX Kawakoshi A., Hyodo S., Inoue K., Kobayashi Y., Takei Y.;
 RL "Four natriuretic peptides (ANP, BNP, VNP and CNP) coexist in the
 RT sturgeon: identification of BNP in fish lineage."
 RL J. Mol. Endocrinol. 32:547-555(2004).
 CC -!- FUNCTION: A potent vasoactive substance which is thought to play a
 CC key role in cardiovascular homeostasis. Has a cGMP-stimulating
 CC activity.
 CC -!- SUBCELLULAR LOCATION: Secreted.
 CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
 CC -----
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 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
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 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC -----
 CC EMBL; AB089933; BAC57069.1; -; mRNA.
 DR InterPro; IPR002407; At_natriurtcpep.
 DR Ensembl; ENSGALG00000004574; Natr_peptide.
 DR PANTHER; PTHR11415; At_natriurtcpep; 1.
 DR Pfam; PF00212; ANP; 1.
 DR PRINTS; PR00710; NATPEPTIDES.
 DR ProDom; PD005617; Natr_peptide; 1.
 DR SMART; SM00183; NAT_PEP; 1.
 DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
 DR KW Hormone; Signal; Vasoactive.
 FT SIGNAL 1 21 Potential.
 FT PROPEP 22 112
 FT PEPTIDE 115 139 Atrial natriuretic factor.
 FT DISULFID 118 134 By similarity.
 SQ SEQUENCE 139 AA; 15569 MW; EC9CB9E9D5C31220 CRC64;
 Query Match 79.3%; Score 73; DB 1; Length 139;
 Best Local Similarity 70.6%; Pred. No. 0.00017;
 Matches 12; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSGLGC 17
 DB 118 CFGRMDRIGNASGLGC 134
 RESULT 40
 ANP_CHICK
 ID ANP_CHICK STANDARD; PRT; 140 AA.
 AC P18908;
 DT 01-NOV-1990 (Rel. 16, Created)
 DT 01-MAR-1992 (Rel. 21, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Atrial natriuretic factor precursor (ANP) (Atrial natriuretic peptide)
 DE (ANP) (prepronatriodilatin).
 GN Name=NPPA;
 OS Gallus gallus (Chicken).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
 OC Gallus.
 OX NCBI_TaxID=9031;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=91192169; PubMed=1826483; DOI=10.1016/0014-5793(91)80331-V;
 RA Akizuki N., Kangawa K., Minamino N., Matsuo H.;
 RT "Cloning and sequence analysis of complementary DNA encoding a
 RT precursor for chicken natriuretic peptide."
 RL FEBS Lett. 280:357-362(1991).
 CC -!- FUNCTION: A potent vasoactive substance which is thought to play a
 CC key role in cardiovascular homeostasis. Has a cGMP-stimulating
 CC activity.
 CC -!- SUBCELLULAR LOCATION: Secreted.
 CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
 CC -----
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 CC removed.
 CC -----
 CC EMBL; X57702; CAA40879.1; -; mRNA.
 DR PIR; S14320; S14320.
 DR Ensembl; ENSGALG00000004574; Gallus gallus.
 DR InterPro; IPR002408; Br_natriurtcpep.
 DR InterPro; IPR000663; Natr_peptide.
 DR Pfam; PF00212; ANP; 1.
 DR PRINTS; PR00712; BNATPEPTIDE.
 DR ProDom; PD005617; Natr_peptide; 1.
 DR SMART; SM00183; NAT_PEP; 1.
 DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
 DR KW Direct protein sequencing; Hormone; Signal; Vasoactive.
 FT SIGNAL 1 24 Potential.
 FT PROPEP 25 110 Atrial natriuretic factor.
 FT PEPTIDE 112 140
 FT DISULFID 118 134
 SQ SEQUENCE 140 AA; 15714 MW; 67FEBFE094E71F40 CRC64;
 Query Match 79.3%; Score 73; DB 1; Length 140;
 Best Local Similarity 70.6%; Pred. No. 0.00017;
 Matches 12; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSGLGC 17
 DB 118 CFGRMDRIGNASGLGC 134

RA Miyata A., Minamino N., Kangawa K., Matsuo H.;
 RT "Identification of a 29-amino acid natriuretic peptide in chicken
 RT heart."
 RL Biochem. Biophys. Res. Commun. 155:1330-1337(1988).
 CC -!- FUNCTION: A potent vasoactive substance which is thought to play a
 CC key role in cardiovascular homeostasis. Has a cGMP-stimulating
 CC activity.
 CC -!- SUBCELLULAR LOCATION: Secreted.
 CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
 CC -----
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 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
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 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC -----
 CC EMBL; X57702; CAA40879.1; -; mRNA.
 DR PIR; S14320; S14320.
 DR Ensembl; ENSGALG00000004574; Gallus gallus.
 DR InterPro; IPR002408; Br_natriurtcpep.
 DR InterPro; IPR000663; Natr_peptide.
 DR Pfam; PF00212; ANP; 1.
 DR PRINTS; PR00712; BNATPEPTIDE.
 DR ProDom; PD005617; Natr_peptide; 1.
 DR SMART; SM00183; NAT_PEP; 1.
 DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
 DR KW Direct protein sequencing; Hormone; Signal; Vasoactive.
 FT SIGNAL 1 24 Potential.
 FT PROPEP 25 110 Atrial natriuretic factor.
 FT PEPTIDE 112 140
 FT DISULFID 118 134
 SQ SEQUENCE 140 AA; 15714 MW; 67FEBFE094E71F40 CRC64;
 Query Match 79.3%; Score 73; DB 1; Length 140;
 Best Local Similarity 70.6%; Pred. No. 0.00017;
 Matches 12; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSGLGC 17
 DB 118 CFGRMDRIGNASGLGC 134
 RESULT 41
 ANF_OREMO
 ID ANF_OREMO STANDARD; PRT; 140 AA.
 AC Q805E9;
 DT 05-JUL-2004 (Rel. 44, Created)
 DT 05-JUL-2004 (Rel. 44, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Atrial natriuretic factor precursor (ANP) (Atrial natriuretic peptide)
 DE (ANP) (prepronatriodilatin).
 GN Name=ANP;
 OS Oreochromis mossambicus (Mozambique tilapia) (Tilapia mossambica).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
 OC Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidae;
 OC Cichlidae; African cichlids; Pseudocrenilabrinae; Tilapiini;
 OC Oreochromis.
 OX NCBI_TaxID=8127;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC TISSUE=Heart;
 RX PubMed=15072558; DOI=10.1677/jme.0.0320547;
 RA Kawakoshi A., Hyodo S., Inoue K., Kobayashi Y., Takei Y.;
 RT "Four natriuretic peptides (ANP, BNP, VNP and CNP) coexist in the
 RT sturgeon: identification of BNP in fish lineage."
 RL J. Mol. Endocrinol. 32:547-555(2004).
 CC -!- FUNCTION: A potent vasoactive substance which is thought to play a
 CC key role in cardiovascular homeostasis. Has a cGMP-stimulating
 CC activity.
 CC -!- SUBCELLULAR LOCATION: Secreted.
 CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
 CC -----

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CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
DR EMBL; AB087283; BAC55024.1; -; mRNA.
DR InterPro; IPR002407; At_natriurtcpep.
DR PANTHER; PTHR11415; At_natriurtcpep; 1.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00711; ANATPEPTIDE.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Hormone; Signal; Vasoactive. Potential.
FT SIGNAL 1 21
FT PROPEP 22 113
FT PEPTIDE 116 140 Atrial natriuretic factor.
FT DISULFID 119 135 By similarity.
SQ SEQUENCE 140 AA; 15577 MW; 5F2D214FA560DB0F CRC64;

Query Match 79.3%; Score 73; DB 1; Length 140;
Best Local Similarity 70.6%; Pred. No. 0.00017;
Matches 12; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
|||:||||:|||||
DB 119 CFGRMDRIGNASGLGC 135

RESULT 42
Q8VHG9 NOTAL PRELIMINARY; PRT; 147 AA.
AC Q8VHG9;
DT 01-WAR-2002 (TrEMBLrel. 20, Created)
DT 01-WAR-2002 (TrEMBLrel. 20, Last sequence update)
DT 01-WAR-2004 (TrEMBLrel. 26, Last annotation update)
DE C-type natriuretic peptide hormone.
OS Notoxys alexis (Spinifex hopping mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Murinae; Notomys.
OX NCBI_TaxID=184396;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=22978641; PubMed=14613785; DOI=10.1016/S1095-6433(03)00207-1;
RA Heimeier R.A., Donald J.A.;
RT "Renal C-type natriuretic peptide and natriuretic peptide receptor B
RT mRNA expression are affected by water deprivation in the Spinifex
RT Hopping mouse.";
RL Comp. Biochem. Physiol., Part A Mol. Integr. Physiol.
RL 136:565-575(2003).
DR EMBL; AF460241; AAL6744.1; -; mRNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0050880; P:regulation of blood vessel size; IEA.
DR InterPro; IPR002408; Br_natriurtcpep.
DR InterPro; IPR002406; C_natriurtcpep.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00712; ENATPEPTIDE.
DR PRINTS; PR00713; CNATPEPTIDE.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Vasoactive.
SQ SEQUENCE 147 AA; 15321 MW; 66F916DB9A853238 CRC64;

Query Match 79.3%; Score 73; DB 2; Length 147;

Best Local Similarity 76.5%; Pred. No. 0.00018;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
|||:||||:|||||
DB 131 CFGLKLDRIKSGMSGLGC 147

RESULT 43
Q90Y11 CRODU PRELIMINARY; PRT; 181 AA.
AC Q90Y11;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-WAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Bradykinin potentiating peptide and C-type natriuretic peptide isoform
DE 2.
OS Crotalus durissus terrificus (South American rattlesnake).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC Viperidae; Crotalinae; Crotalus.
OX NCBI_TaxID=8732;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Venom gland;
RA Hayashi M.A.F., Radis-Baptista G., Barbosa S.R., Yamane T.,
RA Camargo A.C.M.;
RL Submitted (SEP-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF308594; AAL09427.1; -; mRNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0050880; P:regulation of blood vessel size; IEA.
DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00710; NATPEPTIDES.
DR ProDom; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Vasoactive.
SQ SEQUENCE 181 AA; 18507 MW; 9B2E95D38AA5FF27 CRC64;

Query Match 79.3%; Score 73; DB 2; Length 181;
Best Local Similarity 76.5%; Pred. No. 0.00022;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
|||:||||:|||||
DB 165 CFGLKLDRIKSGMSGLGC 181

RESULT 44
Q90Y12 CRODU PRELIMINARY; PRT; 181 AA.
AC Q90Y12;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-WAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Bradykinin potentiating peptide and C-type natriuretic peptide isoform
DE 1.
OS Crotalus durissus terrificus (South American rattlesnake).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC Viperidae; Crotalinae; Crotalus.
OX NCBI_TaxID=8732;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Venom gland;
RA Hayashi M.A.F., Radis-Baptista G., Barbosa S.R., Yamane T.,
RA Camargo A.C.M.;
RL Submitted (SEP-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF308593; AAL09426.1; -; mRNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.

DR GO: GO:0050880; P:regulation of blood vessel size; IEA.
 DR InterPro: IPR000663; Natr_peptide.
 DR Pfam: PF00212; ANP; 1.

DR PRINTS; PR00710; NATPEPTIDES.
 DR ProDom; PD005617; Natr_peptide; 1.
 DR SMART; SM00183; NAT_PEP; 1.
 DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
 KW Vasoactive.
 SQ SEQUENCE 181 AA; 18560 MW; 7B5ADCSB9372D07F CRC64;

Query Match 79.3%; Score 73; DB 2; Length 181;
 Best Local Similarity 76.5%; Pred. No. 0.00022;
 Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSLGQC 17
 |||||:|||||
 DB 165 CFGLKLDRIKSMGLGC 181

RESULT 45

ANFC_CHICK ANFC_CHICK STANDARD; PRT; 22 AA.
 AC P21805; (Rel. 18, Created)
 DT 01-MAY-1991 (Rel. 18, Last sequence update)
 DT 01-MAY-1991 (Rel. 18, Last sequence update)
 DT 25-OCT-2004 (Rel. 45, Last annotation update)
 DE C-type natriuretic peptide (CNP).
 GN Names=NPPC;

OS Gallus gallus (Chicken).
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
 OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
 OC Gallus.
 OX NCBI_TaxID=9031;
 RN [1]

PROTEIN SEQUENCE.

RC TISSUE=Brain;
 RX MEDLINE=91113186; PubMed=1989595;
 RA Arimura J.J., Minamino N., Kangawa K., Matsuo H.;
 RT "Isolation and identification of C-type natriuretic peptide in chicken brain."
 RL Biochem. Biophys. Res. Commun. 174:142-148(1991).
 CC -!- FUNCTION: Vasorelaxant activity. Has a cGMP-stimulating activity.
 CC -!- SUBCELLULAR LOCATION: Secreted.
 CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
 CC -----
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 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.

DR PIR; JTO581; JTO581.
 DR Ensembl; ENSGALG0000004572; Gallus gallus.
 DR InterPro: IPR002408; Br_natriurtcpep.

DR InterPro: IPR000663; Natr_peptide.
 DR Pfam; PF00212; ANP; 1.

DR PRINTS; PR00712; BNATPEPTIDE.
 DR PRINTS; PR00710; NATPEPTIDES.

DR ProDom; PD005617; Natr_peptide; 1.
 DR SMART; SM00183; NAT_PEP; 1.

DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
 KW Direct protein sequencing; Hormone; Vasoactive.
 FT DISULFID 6 22

SQ SEQUENCE 22 AA; 2244 MW; FC2A4706B8DAC025 CRC64;
 Query Match 78.3%; Score 72; DB 1; Length 22;
 Best Local Similarity 76.5%; Pred. No. 3.7e-05;
 Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSLGQC 17
 |||||:|||||
 DB 6 CFGLKLDRIKSMGLGC 22

RESULT 46

ANF_ANGJA ANF_ANGJA STANDARD; PRT; 27 AA.
 AC P18144;
 DT 01-NOV-1990 (Rel. 16, Created)
 DT 01-NOV-1990 (Rel. 16, Last sequence update)
 DT 05-JUN-2004 (Rel. 44, Last annotation update)

DE Atrial natriuretic factor (ANF) (Atrial natriuretic peptide) (ANP).
 OS Anguilla japonica (Japanese eel).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Actinopterygii; Neopterygii; Teleostei; Anguilliformes; Anguillidae;
 OC Anguilla.
 OX NCBI_TaxID=7937;
 RN [1]

PROTEIN SEQUENCE.

RC TISSUE=Heart atrium;
 RX MEDLINE=90026430; PubMed=2529857;
 RA Takei Y., Takahashi A., Watanabe T.X., Nakajima K., Sakakibara S.;
 RT "Amino acid sequence and relative biological activity of eel atrial natriuretic peptide."
 RL Biochem. Biophys. Res. Commun. 164:537-543(1989).
 CC -!- FUNCTION: A potent vasoactive substance which is thought to play a
 CC key role in cardiovascular homeostasis. Has a cGMP-stimulating
 CC activity.
 CC -!- SUBCELLULAR LOCATION: Secreted.
 CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
 CC -----
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 CC use as long as its content is in no way modified and this statement is not
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DR PIR; A33431; A33431.
 DR InterPro: IPR002407; At_natriurtcpep.

DR InterPro: IPR002408; Br_natriurtcpep.
 DR InterPro: IPR000663; Natr_peptide.

DR PANTHER; PTHR11415; At_natriurtcpep; 1.
 DR Pfam; PF00212; ANP; 1.

DR PRINTS; PR00712; BNATPEPTIDE.
 DR PRINTS; PR00710; NATPEPTIDES.

DR ProDom; PD005107; At_natriurtcpep; 1.
 DR ProDom; PD005617; Natr_peptide; 2.

DR SMART; SM00183; NAT_PEP; 1.
 DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.

DR Direct protein sequencing; Hormone; Vasoactive.
 FT DISULFID 7 23
 SQ SEQUENCE 27 AA; 2792 MW; 9EF5100CCF282B4D CRC64;

Query Match 78.3%; Score 72; DB 1; Length 27;
 Best Local Similarity 76.5%; Pred. No. 4.5e-05;
 Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSLGQC 17
 |||||:|||||
 DB 7 CFGLKLDRIKSMGLGC 23

RESULT 47

Q4S797_TETNG Q4S797_TETNG PRELIMINARY; PRT; 101 AA.
 AC Q4S797;
 DT 13-SEP-2005 (TrEMBLrel. 31, Created)
 DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
 DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)

DE Chromosome 1 SCAF14716, whole genome shotgun sequence.
 GN ORFNames=GSTENG00022308001;
 OS Tetraodon nigroviridis (Green puffer).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
 OC Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
 OC Tetraodontidae; Tetraodontidae; Tetraodon.

```

CC NCBI_TaxID=99883;
CC [1]
CC NUCLEOTIDE SEQUENCE.
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CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; AB089938; BAC57074.1; -; mRNA.
CC Ensembl; SINFUG00000151691; Fugu rubripes.
CC InterPro; IPR002406; C_natriurtcpep.
CC InterPro; IPR000663; Natr_peptide.
CC Pfam; PF00212; ANP; 1.
CC PRINTS; PR00713; CNATPEPTIDE.
CC PRINTS; PR00710; NATPEPTIDES.
CC ProDom; PD005617; Natr_peptide; 1.
CC SMART; SM00183; NAT_PEP; 1.
CC PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
CC Hormone; signal; Vasoactive.
CC SIGNAL; 1 22 Potential.
CC PROPEP; 23 94 By similarity.
CC PEPTIDE; 97 120 C-type natriuretic peptide-4.
CC DISULFID; 104 120 By similarity.
CC SEQUENCE 120 AA; 13504 MW; 27233AEC1FA3313E CRC64;
CC
CC Query Match 78.3%; Score 72; DB 1; Length 120;
CC Best Local Similarity 70.6%; Pred. No. 0.00022;
CC Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;
CC
CC QY 1 CFIGKMDRISSSGLGC 17
CC ||| ||||| : ||: ||
CC DB 104 CFIGKMDRIGTISGMGC 120
CC
CC RESULT 49
CC ANFC4_ORYLA STANDARD; PRT; 121 AA.
CC ID ANFC4_ORYLA
CC AC Q80017;
CC DT 25-OCT-2004 (Rel. 45, Created)
CC DT 25-OCT-2004 (Rel. 45, Last sequence update)
CC DT 10-MAY-2005 (Rel. 47, Last annotation update)
CC DE C-type natriuretic peptide-4 precursor.
CC GN Name=cnp-4;
CC OS Oryzias latipes (Medaka fish) (Japanese ricefish).
CC OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
CC OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
CC OC Acanthomorpha; Acanthopterygii; Percomorpha; Atherinomorpha;
CC OC Belontiiformes; Adrianichthyidae; Oryziinae; Oryzias.
CC OX NCBI_TaxID=8090;
CC RN [1]
CC RP NUCLEOTIDE SEQUENCE, FUNCTION, TISSUE SPECIFICITY, AND SYNTHESIS.
CC RC TISSUE=Brain;
CC RA PubMed=12893874; DOI=10.1073/pnas.1632368100;
CC RX Inoue K., Naruse K., Yamagami S., Mitani H., Suzuki N., Takei Y.;
CC RT "Four functionally distinct C-type natriuretic peptides found in fish
CC RT reveal evolutionary history of the natriuretic peptide system.";
CC RL Proc. Natl. Acad. Sci. U.S.A. 100:10079-10084(2003).
CC CC -!- FUNCTION: Exhibits natriuretic and vasodepressant activity. Has
CC CC CGMP-stimulating activity. May help to regulate body fluid
CC CC homeostasis in a variety of aquatic environments.
CC CC -!- SUBCELLULAR LOCATION: Secreted.
CC CC -!- TISSUE SPECIFICITY: Brain, spinal cord, spleen, heart and fin, and
CC CC to a lower extent in gill and ovary.
CC CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
CC CC
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; AB091699; BAC65998.1; -; mRNA.
CC InterPro; IPR002408; Br_natriurtcpep.
CC

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CC NCBI_TaxID=99883;
CC [1]
CC NUCLEOTIDE SEQUENCE.
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
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CC removed.
CC -----
CC EMBL; AB089938; BAC57074.1; -; mRNA.
CC Ensembl; SINFUG00000151691; Fugu rubripes.
CC InterPro; IPR002406; C_natriurtcpep.
CC InterPro; IPR000663; Natr_peptide.
CC Pfam; PF00212; ANP; 1.
CC PRINTS; PR00713; CNATPEPTIDE.
CC PRINTS; PR00710; NATPEPTIDES.
CC ProDom; PD005617; Natr_peptide; 1.
CC SMART; SM00183; NAT_PEP; 1.
CC PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
CC Hormone; signal; Vasoactive.
CC SIGNAL; 1 22 Potential.
CC PROPEP; 23 94 By similarity.
CC PEPTIDE; 97 120 C-type natriuretic peptide-4.
CC DISULFID; 104 120 By similarity.
CC SEQUENCE 120 AA; 13504 MW; 27233AEC1FA3313E CRC64;
CC
CC Query Match 78.3%; Score 72; DB 2; Length 101;
CC Best Local Similarity 70.6%; Pred. No. 0.00018;
CC Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;
CC
CC QY 1 CFIGKMDRISSSGLGC 17
CC ||| ||||| : ||: ||
CC DB 85 CFIGKMDRIGTISGMGC 101
CC
CC RESULT 48
CC ANFC4_FUGRU STANDARD; PRT; 120 AA.
CC ID ANFC4_FUGRU
CC AC Q805D3;
CC DT 25-OCT-2004 (Rel. 45, Created)
CC DT 25-OCT-2004 (Rel. 45, Last sequence update)
CC DT 10-MAY-2005 (Rel. 47, Last annotation update)
CC DE C-type natriuretic peptide-4 precursor.
CC GN Name=cnp-4;
CC OS Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
CC OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
CC OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
CC OC Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
CC OC Tetraodontoidea; Tetraodontidae; Takifugu.
CC OX NCBI_TaxID=31033;
CC RN [1]
CC RP NUCLEOTIDE SEQUENCE.
CC RC TISSUE=Brain;
CC RA PubMed=12893874; DOI=10.1073/pnas.1632368100;
CC RX Inoue K., Naruse K., Yamagami S., Mitani H., Suzuki N., Takei Y.;
CC RT "Four functionally distinct C-type natriuretic peptides found in fish
CC RT reveal evolutionary history of the natriuretic peptide system.";
CC RL Proc. Natl. Acad. Sci. U.S.A. 100:10079-10084(2003).
CC CC -!- FUNCTION: Exhibits natriuretic and vasodepressant activity. Has
CC CC CGMP-stimulating activity. May help to regulate body fluid
CC CC homeostasis in a variety of aquatic environments.
CC CC -!- SUBCELLULAR LOCATION: Secreted.
CC CC

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DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00712; ENATPEPTIDE.
DR PRINTS; PR00710; NATPEPTIDES.
DR PRODOM; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Hormone; Signal; Vasoactive.
FT SIGNAL 1 22 Potential.
FT PROPEP 23 94 By similarity.
FT PEPTIDE 97 121 C-type natriuretic peptide-4.
FT DISULFID 105 121 By similarity.
SQ SEQUENCE 121 AA; 13457 MW; EFD7FD534B137009 CRC64;

Query Match 78.3%; Score 72; DB 1; Length 121;
Best Local Similarity 70.6%; Pred. No. 0.0022;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISSSSLGQC 17
DB 105 CFCGRKMDRIGTISGMGC 121

RESULT 50
ANFC2_FUGRU
ID ANFC2_FUGRU STANDARD; PRT; 130 AA.
AC Q80SD5;
DT 25-OCT-2004 (Rel. 45, Created)
DT 25-OCT-2004 (Rel. 45, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE C-type natriuretic peptide-2 precursor.
GN Name=cnp-2;
OS Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Neoteleostei;
OC Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
OC Tetraodontidae; Tetraodontidae; Takifugu.
OX NCBI_Taxid=31033;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Brain;
RX PubMed=12893874; DOI=10.1073/pnas.1632368100;
RA Inoue K., Naruse K., Yamagami S., Mitani H., Suzuki N., Takei Y.;
RT "Four functionally distinct C-type natriuretic peptides found in fish
RT reveal evolutionary history of the natriuretic peptide system.";
RL Proc. Natl. Acad. Sci. U.S.A. 100:10079-10084(2003).
CC -!- FUNCTION: Exhibits natriuretic and vasodepressant activity. Has
CC CGMP-stimulating activity. May help to regulate body fluid
CC homeostasis in a variety of aquatic environments.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: Belongs to the natriuretic peptide family.
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removed.
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DR EMBL; AB089936; BAC57072.1; -; mRNA.
DR Ensembl; SINFUG00000157592; Fugu rubripes.
DR InterPro; IPR002406; C_natriurtcpep.
DR InterPro; IPR000663; Natr_peptide.
DR Pfam; PF00212; ANP; 1.
DR PRINTS; PR00713; CNATPEPTIDE.
DR PRINTS; PR00710; NATPEPTIDES.
DR PRODOM; PD005617; Natr_peptide; 1.
DR SMART; SM00183; NAT_PEP; 1.
DR PROSITE; PS00263; NATRIURETIC_PEPTIDE; 1.
KW Hormone; Signal; Vasoactive.
FT SIGNAL 1 22 Potential.
FT PROPEP 23 101 By similarity.
FT PEPTIDE 104 130 C-type natriuretic peptide-2.
FT DISULFID 114 130 By similarity.
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SQ SEQUENCE 130 AA; 13792 MW; 41BE1FC1A5F7E4C CRC64;

Query Match 78.3%; Score 72; DB 1; Length 130;
Best Local Similarity 76.5%; Pred. No. 0.00023;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISSSSLGQC 17
DB 114 CFCGRKMDRIGTISGLGC 130

Search completed: January 25, 2006, 18:48:18
Job time : 118 secs
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OM protein - protein search, using sw model

Run on: January 25, 2006, 18:44:47 ; Search time 23 Seconds
(without alignments)
61.108 Million cell updates/sec

Title: US-10-737-290-172
Perfect score: 92
Sequence: 1 CFIGKMDRISSSSGLGC 17

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 1000 summaries

Database : Issued Patents AA:*

1: /cgn2_6/prodata/1/iaa/5_COMB.pep.*
2: /cgn2_6/prodata/1/iaa/6_COMB.pep.*
3: /cgn2_6/prodata/1/iaa/H_COMB.pep.*
4: /cgn2_6/prodata/1/iaa/PCTUS_COMB.pep.*
5: /cgn2_6/prodata/1/iaa/RE_COMB.pep.*
6: /cgn2_6/prodata/1/iaa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query Match | Length | ID | Description |
|------------|-------|-------------|--------|----|--------------------|
| 1 | 92 | 100.0 | 26 | 1 | US-08-850-910A-1 |
| 2 | 92 | 100.0 | 26 | 2 | US-10-106-806-7 |
| 3 | 92 | 100.0 | 26 | 2 | US-09-902-517-1 |
| 4 | 92 | 100.0 | 32 | 1 | US-07-828-450-41 |
| 5 | 92 | 100.0 | 32 | 1 | US-08-297-330-2 |
| 6 | 92 | 100.0 | 32 | 1 | US-08-451-240-3 |
| 7 | 92 | 100.0 | 32 | 1 | US-08-451-240-22 |
| 8 | 92 | 100.0 | 32 | 1 | US-08-470-846A-3 |
| 9 | 92 | 100.0 | 32 | 2 | US-08-942-332B-1 |
| 10 | 92 | 100.0 | 32 | 2 | US-08-942-456-1 |
| 11 | 92 | 100.0 | 32 | 2 | US-09-510-721-1 |
| 12 | 92 | 100.0 | 32 | 2 | US-09-466-268B-6 |
| 13 | 92 | 100.0 | 32 | 2 | US-09-154-390-3 |
| 14 | 92 | 100.0 | 32 | 2 | US-09-154-390-22 |
| 15 | 92 | 100.0 | 32 | 2 | US-09-154-390-6 |
| 16 | 92 | 100.0 | 32 | 2 | US-09-623-548A-509 |
| 17 | 92 | 100.0 | 32 | 2 | US-09-623-548A-516 |
| 18 | 92 | 100.0 | 32 | 2 | US-09-657-276-509 |
| 19 | 92 | 100.0 | 32 | 2 | US-09-657-276-516 |
| 20 | 92 | 100.0 | 32 | 2 | US-09-902-517-49 |
| 21 | 92 | 100.0 | 32 | 4 | PCT-US94-02391-2 |
| 22 | 92 | 100.0 | 32 | 4 | PCT-US94-12591-3 |
| 23 | 92 | 100.0 | 32 | 4 | PCT-US94-12591-22 |
| 24 | 92 | 100.0 | 33 | 2 | US-09-942-709-1 |
| 25 | 92 | 100.0 | 41 | 2 | US-09-466-268B-1 |
| 26 | 92 | 100.0 | 41 | 2 | US-10-106-806-1 |
| 27 | 92 | 100.0 | 134 | 1 | US-08-850-910A-45 |

| | | | | | |
|-----|----|-------|-----|---|--------------------|
| 28 | 92 | 100.0 | 134 | 1 | US-08-850-910A-48 |
| 29 | 92 | 100.0 | 134 | 2 | US-09-508-435A-2 |
| 30 | 92 | 100.0 | 134 | 2 | US-09-902-517-45 |
| 31 | 92 | 100.0 | 134 | 2 | US-09-902-517-48 |
| 32 | 90 | 97.8 | 33 | 2 | US-09-623-548A-515 |
| 33 | 90 | 97.8 | 33 | 2 | US-09-657-276-515 |
| 34 | 88 | 95.7 | 32 | 2 | US-08-954-915A-1 |
| 35 | 83 | 90.2 | 25 | 2 | US-09-466-268B-7 |
| 36 | 83 | 90.2 | 32 | 2 | US-08-954-915A-4 |
| 37 | 82 | 89.1 | 32 | 2 | US-08-954-915A-48 |
| 38 | 81 | 88.0 | 32 | 2 | US-10-360-101-86 |
| 39 | 78 | 84.8 | 32 | 2 | US-08-954-915A-5 |
| 40 | 78 | 84.8 | 32 | 2 | US-08-954-915A-24 |
| 41 | 77 | 83.7 | 32 | 2 | US-08-954-915A-49 |
| 42 | 76 | 82.6 | 17 | 1 | US-08-850-910A-15 |
| 43 | 76 | 82.6 | 17 | 1 | US-09-902-517-15 |
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| 46 | 76 | 82.6 | 22 | 1 | US-07-828-450-10 |
| 47 | 76 | 82.6 | 22 | 1 | US-07-828-450-13 |
| 48 | 76 | 82.6 | 26 | 1 | US-07-778-847-2 |
| 49 | 76 | 82.6 | 26 | 1 | US-08-850-910A-3 |
| 50 | 76 | 82.6 | 26 | 2 | US-09-623-548A-511 |
| 51 | 76 | 82.6 | 26 | 2 | US-09-657-276-511 |
| 52 | 76 | 82.6 | 26 | 2 | US-09-902-517-3 |
| 53 | 76 | 82.6 | 32 | 1 | US-07-754-958-5 |
| 54 | 76 | 82.6 | 32 | 1 | US-07-754-947-5 |
| 55 | 76 | 82.6 | 32 | 2 | US-08-954-915A-44 |
| 56 | 76 | 82.6 | 32 | 2 | US-08-954-915A-45 |
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| 62 | 76 | 82.6 | 106 | 1 | US-08-850-910A-30 |
| 63 | 76 | 82.6 | 106 | 2 | US-09-902-517-30 |
| 64 | 76 | 82.6 | 131 | 1 | US-08-850-910A-39 |
| 65 | 76 | 82.6 | 131 | 1 | US-08-850-910A-41 |
| 66 | 76 | 82.6 | 131 | 1 | US-08-850-910A-43 |
| 67 | 76 | 82.6 | 131 | 1 | US-08-850-910A-46 |
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| 71 | 76 | 82.6 | 132 | 1 | US-09-902-517-46 |
| 72 | 76 | 82.6 | 132 | 1 | US-08-850-910A-47 |
| 73 | 76 | 82.6 | 132 | 2 | US-09-902-517-47 |
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| 76 | 74 | 80.4 | 22 | 1 | US-07-828-450-24 |
| 77 | 74 | 80.4 | 22 | 1 | US-07-828-450-25 |
| 78 | 74 | 80.4 | 32 | 2 | US-08-954-915A-16 |
| 79 | 73 | 79.3 | 17 | 1 | US-07-828-450-7 |
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| 83 | 73 | 79.3 | 22 | 1 | US-07-728-221B-11 |
| 84 | 73 | 79.3 | 22 | 1 | US-07-778-847-3 |
| 85 | 73 | 79.3 | 22 | 1 | US-07-828-450-2 |
| 86 | 73 | 79.3 | 22 | 1 | US-07-828-450-8 |
| 87 | 73 | 79.3 | 22 | 1 | US-07-828-450-14 |
| 88 | 73 | 79.3 | 22 | 1 | US-07-828-450-16 |
| 89 | 73 | 79.3 | 22 | 1 | US-07-828-450-31 |
| 90 | 73 | 79.3 | 22 | 1 | US-07-828-450-42 |
| 91 | 73 | 79.3 | 22 | 1 | US-08-297-330-3 |
| 92 | 73 | 79.3 | 22 | 1 | US-08-451-240-4 |
| 93 | 73 | 79.3 | 22 | 1 | US-08-470-846A-4 |
| 94 | 73 | 79.3 | 22 | 2 | US-07-728-220C-21 |
| 95 | 73 | 79.3 | 22 | 2 | US-09-466-268B-9 |
| 96 | 73 | 79.3 | 22 | 2 | US-09-154-390-4 |
| 97 | 73 | 79.3 | 22 | 2 | US-10-106-806-8 |
| 98 | 73 | 79.3 | 22 | 2 | US-10-106-806-9 |
| 99 | 73 | 79.3 | 22 | 2 | US-09-623-548A-517 |
| 100 | 73 | 79.3 | 22 | 2 | US-09-657-276-517 |

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Sequence 517, App

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| 102 | 73 | 79.3 | 22 | 4 | PCT-US94-12591-4 | Sequence 4, Appli | 175 | 71 | 77.2 | 24 | 6 | 5212286-28 | Patent No. 5212286 |
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| 104 | 73 | 79.3 | 23 | 1 | US-09-623-548A-524 | Sequence 524, App | 177 | 71 | 77.2 | 25 | 1 | US-08-623-548A-480 | Sequence 480, App |
| 105 | 73 | 79.3 | 23 | 2 | US-09-657-276-524 | Sequence 524, App | 178 | 71 | 77.2 | 25 | 2 | US-09-657-276-480 | Sequence 480, App |
| 106 | 73 | 79.3 | 23 | 1 | US-07-828-450-5 | Sequence 5, Appli | 179 | 71 | 77.2 | 25 | 2 | US-09-902-517-2 | Sequence 2, Appli |
| 107 | 73 | 79.3 | 27 | 1 | US-08-297-330-4 | Sequence 4, Appli | 180 | 71 | 77.2 | 25 | 6 | 5202239-16 | Patent No. 5202239 |
| 108 | 73 | 79.3 | 27 | 2 | US-09-623-548A-523 | Sequence 523, App | 181 | 71 | 77.2 | 25 | 6 | 5212286-27 | Patent No. 5212286 |
| 109 | 73 | 79.3 | 27 | 2 | US-10-360-101-25 | Sequence 25, Appli | 182 | 71 | 77.2 | 26 | 2 | US-09-623-548A-479 | Sequence 479, App |
| 110 | 73 | 79.3 | 27 | 2 | US-10-360-101-88 | Sequence 88, Appli | 183 | 71 | 77.2 | 26 | 2 | US-09-657-276-479 | Sequence 479, App |
| 111 | 73 | 79.3 | 27 | 2 | US-09-657-276-523 | Sequence 523, App | 184 | 71 | 77.2 | 27 | 1 | US-07-828-450-4 | Sequence 4, Appli |
| 112 | 73 | 79.3 | 27 | 4 | PCT-US94-02391-4 | Sequence 4, Appli | 185 | 71 | 77.2 | 27 | 6 | 5202239-5 | Patent No. 5202239 |
| 113 | 73 | 79.3 | 28 | 1 | US-08-451-240-14 | Sequence 14, Appli | 186 | 71 | 77.2 | 28 | 1 | US-07-754-958-2 | Sequence 2, Appli |
| 114 | 73 | 79.3 | 28 | 1 | US-08-470-846A-14 | Sequence 14, Appli | 187 | 71 | 77.2 | 28 | 1 | US-07-754-947-2 | Sequence 2, Appli |
| 115 | 73 | 79.3 | 28 | 4 | US-09-154-390-14 | Sequence 14, Appli | 188 | 71 | 77.2 | 28 | 1 | US-07-778-847-1 | Sequence 1, Appli |
| 116 | 73 | 79.3 | 28 | 4 | PCT-US94-12591-14 | Sequence 14, Appli | 189 | 71 | 77.2 | 28 | 1 | US-07-781-590A-13 | Sequence 13, Appli |
| 117 | 73 | 79.3 | 29 | 1 | US-07-754-958-6 | Sequence 6, Appli | 190 | 71 | 77.2 | 28 | 1 | US-07-781-590A-14 | Sequence 14, Appli |
| 118 | 73 | 79.3 | 29 | 1 | US-07-754-947-6 | Sequence 6, Appli | 191 | 71 | 77.2 | 28 | 1 | US-07-828-450-1 | Sequence 1, Appli |
| 119 | 73 | 79.3 | 29 | 2 | US-09-623-548A-465 | Sequence 465, App | 192 | 71 | 77.2 | 28 | 1 | US-07-828-450-17 | Sequence 17, Appli |
| 120 | 73 | 79.3 | 29 | 2 | US-09-657-276-465 | Sequence 465, App | 193 | 71 | 77.2 | 28 | 1 | US-07-828-450-40 | Sequence 40, Appli |
| 121 | 73 | 79.3 | 32 | 2 | US-08-954-915A-12 | Sequence 12, Appli | 194 | 71 | 77.2 | 28 | 1 | US-07-828-450-40 | Sequence 40, Appli |
| 122 | 73 | 79.3 | 32 | 2 | US-08-954-915A-43 | Sequence 43, Appli | 195 | 71 | 77.2 | 28 | 1 | US-08-184-935-3 | Sequence 3, Appli |
| 123 | 73 | 79.3 | 37 | 2 | US-09-466-268B-2 | Sequence 2, Appli | 196 | 71 | 77.2 | 28 | 1 | US-08-066-156-2 | Sequence 2, Appli |
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| 125 | 73 | 79.3 | 45 | 1 | US-07-757-606B-4 | Sequence 4, Appli | 198 | 71 | 77.2 | 28 | 1 | US-08-288-681A-2 | Sequence 2, Appli |
| 126 | 73 | 79.3 | 53 | 1 | US-07-728-221B-1 | Sequence 1, Appli | 199 | 71 | 77.2 | 28 | 1 | US-08-451-240-21 | Sequence 21, Appli |
| 127 | 73 | 79.3 | 53 | 1 | US-07-728-221B-10 | Sequence 10, Appli | 200 | 71 | 77.2 | 28 | 1 | US-08-741-678-2 | Sequence 2, Appli |
| 128 | 73 | 79.3 | 53 | 1 | US-07-728-220C-22 | Sequence 22, Appli | 201 | 71 | 77.2 | 28 | 1 | US-08-470-846A-2 | Sequence 2, Appli |
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| 130 | 73 | 79.3 | 53 | 2 | US-09-623-548A-519 | Sequence 519, App | 203 | 71 | 77.2 | 28 | 2 | US-08-167-641C-53 | Sequence 53, Appli |
| 131 | 73 | 79.3 | 53 | 2 | US-09-623-548A-520 | Sequence 520, App | 204 | 71 | 77.2 | 28 | 2 | US-08-460-971A-53 | Sequence 53, Appli |
| 132 | 73 | 79.3 | 53 | 2 | US-10-360-101-87 | Sequence 87, Appli | 205 | 71 | 77.2 | 28 | 2 | US-08-462-040-53 | Sequence 5, Appli |
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| 134 | 73 | 79.3 | 53 | 2 | US-09-657-276-520 | Sequence 520, App | 207 | 71 | 77.2 | 28 | 2 | US-09-154-390-21 | Sequence 21, Appli |
| 135 | 73 | 79.3 | 126 | 1 | US-07-757-606B-6 | Sequence 1, Appli | 208 | 71 | 77.2 | 28 | 2 | US-10-106-806-5 | Sequence 5, Appli |
| 136 | 73 | 79.3 | 126 | 1 | US-07-757-606B-6 | Sequence 6, Appli | 209 | 71 | 77.2 | 28 | 2 | US-09-623-548A-476 | Sequence 476, App |
| 137 | 73 | 79.3 | 126 | 2 | US-07-728-220C-20 | Sequence 20, Appli | 210 | 71 | 77.2 | 28 | 2 | US-09-623-548A-495 | Sequence 495, App |
| 138 | 73 | 79.3 | 126 | 2 | US-07-765-830A-1 | Sequence 1, Appli | 211 | 71 | 77.2 | 28 | 2 | US-10-360-101-84 | Sequence 84, Appli |
| 139 | 73 | 79.3 | 126 | 2 | US-07-765-830A-6 | Sequence 6, Appli | 212 | 71 | 77.2 | 28 | 2 | US-09-657-276-476 | Sequence 476, App |
| 140 | 73 | 79.3 | 126 | 2 | US-07-765-830A-7 | Sequence 7, Appli | 213 | 71 | 77.2 | 28 | 2 | US-09-657-276-495 | Sequence 495, App |
| 141 | 73 | 79.3 | 126 | 2 | US-09-949-016-10041 | Sequence 10041, A | 214 | 71 | 77.2 | 28 | 4 | PCT-US94-02391-1 | Sequence 1, Appli |
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| 143 | 72 | 78.3 | 17 | 1 | US-09-902-517-5 | Sequence 5, Appli | 216 | 71 | 77.2 | 28 | 6 | 5449751-2 | Patent No. 5449751 |
| 144 | 72 | 78.3 | 22 | 1 | US-07-754-947-1 | Sequence 1, Appli | 217 | 71 | 77.2 | 28 | 6 | 5449751-1 | Patent No. 5449751 |
| 145 | 72 | 78.3 | 22 | 1 | US-07-828-450-22 | Sequence 22, Appli | 218 | 71 | 77.2 | 28 | 6 | 5461142-1 | Patent No. 5461142 |
| 146 | 72 | 78.3 | 22 | 1 | US-07-828-450-23 | Sequence 23, Appli | 219 | 71 | 77.2 | 29 | 1 | US-08-448-219-5 | Sequence 5, Appli |
| 147 | 72 | 78.3 | 22 | 2 | US-09-623-548A-508 | Sequence 508, App | 220 | 71 | 77.2 | 31 | 2 | US-09-026-276-22 | Sequence 22, Appli |
| 148 | 72 | 78.3 | 22 | 2 | US-09-623-548A-518 | Sequence 518, App | 221 | 71 | 77.2 | 31 | 2 | US-09-964-201A-22 | Sequence 2, Appli |
| 149 | 72 | 78.3 | 22 | 2 | US-09-657-276-508 | Sequence 508, App | 222 | 71 | 77.2 | 31 | 2 | US-08-451-240-2 | Sequence 4, Appli |
| 150 | 72 | 78.3 | 22 | 2 | US-09-657-276-518 | Sequence 518, App | 223 | 71 | 77.2 | 32 | 1 | US-08-737-927-4 | Sequence 18, Appli |
| 151 | 72 | 78.3 | 27 | 2 | US-09-623-548A-482 | Sequence 482, App | 224 | 71 | 77.2 | 32 | 1 | US-08-470-846A-18 | Sequence 11, Appli |
| 152 | 72 | 78.3 | 27 | 2 | US-09-623-548A-491 | Sequence 491, App | 225 | 71 | 77.2 | 32 | 2 | US-08-954-915A-11 | Sequence 14, Appli |
| 153 | 72 | 78.3 | 27 | 2 | US-09-623-548A-501 | Sequence 501, App | 226 | 71 | 77.2 | 32 | 2 | US-08-954-915A-15 | Sequence 15, Appli |
| 154 | 72 | 78.3 | 27 | 2 | US-09-657-276-482 | Sequence 482, App | 227 | 71 | 77.2 | 32 | 2 | US-08-954-915A-17 | Sequence 17, Appli |
| 155 | 72 | 78.3 | 27 | 2 | US-09-657-276-491 | Sequence 491, App | 228 | 71 | 77.2 | 32 | 2 | US-08-954-915A-18 | Sequence 18, Appli |
| 156 | 72 | 78.3 | 27 | 2 | US-09-657-276-501 | Sequence 501, App | 229 | 71 | 77.2 | 32 | 2 | US-08-954-915A-20 | Sequence 20, Appli |
| 157 | 72 | 78.3 | 32 | 2 | US-08-954-915A-6 | Sequence 6, Appli | 230 | 71 | 77.2 | 32 | 2 | US-08-954-915A-22 | Sequence 22, Appli |
| 158 | 72 | 78.3 | 32 | 2 | US-08-954-915A-19 | Sequence 19, Appli | 231 | 71 | 77.2 | 32 | 2 | US-09-068-738A-2 | Sequence 2, Appli |
| 159 | 71 | 77.2 | 17 | 1 | US-08-737-927-1 | Sequence 1, Appli | 232 | 71 | 77.2 | 32 | 2 | US-09-068-738A-17 | Sequence 17, Appli |
| 160 | 71 | 77.2 | 17 | 2 | US-09-623-548A-474 | Sequence 474, App | 233 | 71 | 77.2 | 32 | 2 | US-09-154-390-2 | Sequence 2, Appli |
| 161 | 71 | 77.2 | 17 | 2 | US-09-657-276-474 | Sequence 474, App | 234 | 71 | 77.2 | 32 | 2 | US-09-623-548A-504 | Sequence 504, App |
| 162 | 71 | 77.2 | 20 | 1 | US-08-850-910A-32 | Sequence 32, Appli | 235 | 71 | 77.2 | 32 | 2 | US-09-657-276-504 | Sequence 504, App |
| 163 | 71 | 77.2 | 20 | 2 | US-09-902-517-32 | Sequence 32, Appli | 236 | 71 | 77.2 | 32 | 2 | PCT-US94-12591-2 | Sequence 2, Appli |
| 164 | 71 | 77.2 | 20 | 6 | 5212286-30 | Patent No. 5212286 | 237 | 71 | 77.2 | 32 | 4 | PCT-US94-12591-2 | Sequence 2, Appli |
| 165 | 71 | 77.2 | 22 | 2 | US-09-623-548A-475 | Sequence 475, App | 238 | 71 | 77.2 | 32 | 6 | 5449751-1 | Patent No. 5449751 |
| 166 | 71 | 77.2 | 22 | 2 | US-09-657-276-475 | Sequence 475, App | 239 | 71 | 77.2 | 32 | 6 | 5449751-3 | Patent No. 5449751 |
| 167 | 71 | 77.2 | 22 | 6 | 5212286-40 | Patent No. 5212286 | 240 | 71 | 77.2 | 56 | 2 | US-09-623-548A-489 | Sequence 489, App |
| 168 | 71 | 77.2 | 23 | 1 | US-07-828-450-3 | Sequence 3, Appli | 241 | 71 | 77.2 | 56 | 2 | US-09-657-276-489 | Sequence 489, App |
| 169 | 71 | 77.2 | 23 | 2 | US-09-623-548A-481 | Sequence 481, App | 242 | 71 | 77.2 | 125 | 1 | US-08-862-480B-1 | Sequence 1, Appli |
| 170 | 71 | 77.2 | 23 | 2 | US-09-657-276-481 | Sequence 481, App | 243 | 71 | 77.2 | 136 | 6 | 5212286-4 | Patent No. 5212286 |
| 171 | 71 | 77.2 | 23 | 6 | 5212286-39 | Patent No. 5212286 | 244 | 71 | 77.2 | 144 | 6 | 5202239-1 | Patent No. 5202239 |
| 172 | 71 | 77.2 | 23 | 6 | 5212286-50 | Patent No. 5212286 | 245 | 71 | 77.2 | 144 | 6 | 5202239-3 | Patent No. 5202239 |
| 173 | 71 | 77.2 | 24 | 2 | US-09-623-548A-473 | Sequence 473, App | 246 | 71 | 77.2 | 151 | 2 | US-08-916-043-5 | Sequence 5, Appli |

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| 247 | 71 | 77.2 | 151 | 2 | US-09-428-929-5 | Sequence 5, Appli | 320 | 66 | 71.7 | 24 | 1 | US-07-754-947-4 | Sequence 4, Appli |
| 248 | 71 | 77.2 | 151 | 6 | 5212286-2 | Patent No. 5212286 | 321 | 66 | 71.7 | 24 | 2 | US-09-623-548A-468 | Sequence 468, App |
| 249 | 71 | 77.2 | 241 | 6 | 5223425-11 | Patent No. 5223425 | 322 | 66 | 71.7 | 24 | 2 | US-09-623-548A-471 | Sequence 471, App |
| 250 | 70 | 76.1 | 22 | 1 | US-07-828-450-9 | Sequence 9, Appli | 323 | 66 | 71.7 | 24 | 2 | US-09-657-276-468 | Sequence 468, App |
| 251 | 70 | 76.1 | 22 | 1 | US-07-828-450-11 | Sequence 11, Appli | 324 | 66 | 71.7 | 24 | 2 | US-09-657-276-471 | Sequence 471, App |
| 252 | 70 | 76.1 | 22 | 1 | US-07-828-450-15 | Sequence 15, Appli | 325 | 66 | 71.7 | 25 | 6 | 5212286-36 | Patent No. 5212286 |
| 253 | 69 | 75.0 | 32 | 2 | US-08-954-915A-23 | Sequence 23, Appli | 326 | 66 | 71.7 | 28 | 1 | US-08-451-240-6 | Sequence 6, Appli |
| 254 | 69 | 75.0 | 32 | 2 | US-08-954-915A-26 | Sequence 26, Appli | 327 | 66 | 71.7 | 28 | 1 | US-08-470-846A-6 | Sequence 6, Appli |
| 255 | 68 | 73.9 | 23 | 1 | US-07-754-958-1 | Sequence 1, Appli | 328 | 66 | 71.7 | 28 | 1 | US-08-470-846A-22 | Sequence 22, Appli |
| 256 | 68 | 73.9 | 23 | 6 | 5212286-44 | Patent No. 5212286 | 329 | 66 | 71.7 | 28 | 2 | US-08-954-915A-54 | Sequence 54, Appli |
| 257 | 68 | 73.9 | 23 | 6 | 5212286-47 | Patent No. 5212286 | 330 | 66 | 71.7 | 28 | 2 | US-09-154-390-6 | Sequence 6, Appli |
| 258 | 68 | 73.9 | 25 | 6 | 5212286-32 | Patent No. 5212286 | 331 | 66 | 71.7 | 28 | 2 | US-09-154-390-24 | Sequence 24, Appli |
| 259 | 68 | 73.9 | 35 | 6 | 5212286-35 | Patent No. 5212286 | 332 | 66 | 71.7 | 28 | 4 | PCT-US94-12591-6 | Sequence 6, Appli |
| 260 | 68 | 73.9 | 32 | 2 | US-08-954-915A-21 | Sequence 21, Appli | 333 | 66 | 71.7 | 30 | 2 | US-09-623-548A-472 | Sequence 472, App |
| 261 | 67 | 72.8 | 21 | 1 | US-08-257-446-2 | Sequence 2, Appli | 334 | 66 | 71.7 | 30 | 2 | US-09-657-276-472 | Sequence 472, App |
| 262 | 67 | 72.8 | 21 | 2 | US-09-623-548A-483 | Sequence 483, App | 335 | 66 | 71.7 | 32 | 1 | US-08-451-240-5 | Sequence 5, Appli |
| 263 | 67 | 72.8 | 21 | 2 | US-09-657-276-483 | Sequence 483, App | 336 | 66 | 71.7 | 32 | 1 | US-08-470-846A-5 | Sequence 5, Appli |
| 264 | 67 | 72.8 | 21 | 6 | 5212286-41 | Patent No. 5212286 | 337 | 66 | 71.7 | 32 | 2 | US-08-954-915A-27 | Sequence 27, Appli |
| 265 | 67 | 72.8 | 22 | 1 | US-08-257-446-1 | Sequence 1, Appli | 338 | 66 | 71.7 | 32 | 2 | US-09-154-390-5 | Sequence 5, Appli |
| 266 | 67 | 72.8 | 22 | 6 | 5212286-38 | Patent No. 5212286 | 339 | 66 | 71.7 | 32 | 6 | PCT-US94-12591-5 | Patent No. 5212286 |
| 267 | 67 | 72.8 | 23 | 2 | US-09-623-548A-484 | Sequence 484, App | 340 | 65 | 70.7 | 20 | 6 | 5212286-58 | Patent No. 5212286 |
| 268 | 67 | 72.8 | 23 | 2 | US-09-657-276-484 | Sequence 484, App | 341 | 65 | 70.7 | 24 | 6 | 5212286-56 | Patent No. 5212286 |
| 269 | 67 | 72.8 | 23 | 6 | 5212286-29 | Patent No. 5212286 | 342 | 65 | 70.7 | 25 | 6 | 5212286-55 | Patent No. 5212286 |
| 270 | 67 | 72.8 | 23 | 6 | 5212286-37 | Patent No. 5212286 | 343 | 65 | 70.7 | 32 | 2 | US-08-954-915A-2 | Sequence 2, Appli |
| 271 | 67 | 72.8 | 24 | 1 | US-08-257-446-5 | Sequence 5, Appli | 344 | 65 | 70.7 | 32 | 2 | US-08-954-915A-3 | Sequence 3, Appli |
| 272 | 67 | 72.8 | 24 | 2 | US-09-623-548A-485 | Sequence 485, App | 345 | 65 | 70.7 | 35 | 2 | US-09-623-548A-506 | Sequence 506, App |
| 273 | 67 | 72.8 | 24 | 2 | US-09-623-548A-487 | Sequence 487, App | 346 | 65 | 70.7 | 35 | 2 | US-09-657-276-506 | Sequence 506, App |
| 274 | 67 | 72.8 | 24 | 2 | US-09-623-548A-502 | Sequence 502, App | 347 | 65 | 70.7 | 45 | 2 | US-08-954-915A-47 | Sequence 47, Appli |
| 275 | 67 | 72.8 | 24 | 2 | US-09-623-548A-505 | Sequence 505, App | 348 | 65 | 70.7 | 45 | 2 | US-09-623-548A-510 | Sequence 510, App |
| 276 | 67 | 72.8 | 24 | 2 | US-09-657-276-485 | Sequence 485, App | 349 | 65 | 70.7 | 45 | 2 | US-09-657-276-510 | Sequence 510, App |
| 277 | 67 | 72.8 | 24 | 2 | US-09-657-276-487 | Sequence 487, App | 350 | 64 | 69.6 | 17 | 1 | US-07-828-450-19 | Sequence 19, Appli |
| 278 | 67 | 72.8 | 24 | 2 | US-09-657-276-502 | Sequence 502, App | 351 | 64 | 69.6 | 18 | 6 | 5212286-42 | Patent No. 5212286 |
| 279 | 67 | 72.8 | 24 | 6 | 5212286-26 | Patent No. 5212286 | 352 | 64 | 69.6 | 21 | 2 | US-09-466-268B-8 | Sequence 8, Appli |
| 280 | 67 | 72.8 | 24 | 2 | US-09-657-276-505 | Sequence 505, App | 353 | 64 | 69.6 | 22 | 1 | US-07-828-450-26 | Sequence 26, Appli |
| 281 | 67 | 72.8 | 25 | 2 | US-09-623-548A-488 | Sequence 488, App | 354 | 64 | 69.6 | 22 | 1 | US-07-828-450-27 | Sequence 27, Appli |
| 282 | 67 | 72.8 | 25 | 2 | US-09-657-276-488 | Sequence 488, App | 355 | 64 | 69.6 | 22 | 1 | US-07-828-450-28 | Sequence 28, Appli |
| 283 | 67 | 72.8 | 25 | 6 | 5212286-25 | Patent No. 5212286 | 356 | 64 | 69.6 | 22 | 1 | US-07-828-450-29 | Sequence 29, Appli |
| 284 | 67 | 72.8 | 25 | 6 | 5212286-34 | Patent No. 5212286 | 357 | 64 | 69.6 | 22 | 4 | PCT-US94-02391-9 | Sequence 9, Appli |
| 285 | 67 | 72.8 | 26 | 1 | US-07-781-590A-1 | Sequence 1, Appli | 358 | 64 | 69.6 | 22 | 2 | US-08-954-915A-25 | Sequence 25, Appli |
| 286 | 67 | 72.8 | 26 | 2 | US-09-623-548A-478 | Sequence 478, App | 359 | 64 | 69.6 | 32 | 2 | US-08-954-915A-28 | Sequence 28, Appli |
| 287 | 67 | 72.8 | 26 | 2 | US-09-657-276-478 | Sequence 478, App | 360 | 64 | 69.6 | 32 | 2 | US-10-106-806-11 | Sequence 11, Appli |
| 288 | 67 | 72.8 | 28 | 1 | US-07-754-958-3 | Sequence 3, Appli | 361 | 63 | 68.5 | 23 | 2 | US-09-623-548A-513 | Sequence 513, App |
| 289 | 67 | 72.8 | 28 | 1 | US-07-754-947-3 | Sequence 9, Appli | 362 | 63 | 68.5 | 32 | 2 | US-09-657-276-513 | Sequence 513, App |
| 290 | 67 | 72.8 | 28 | 1 | US-08-451-240-9 | Sequence 25, Appli | 363 | 63 | 68.5 | 38 | 2 | US-09-466-268B-10 | Sequence 10, Appli |
| 291 | 67 | 72.8 | 28 | 1 | US-08-451-240-25 | Sequence 25, Appli | 364 | 63 | 68.5 | 38 | 2 | US-10-106-806-10 | Sequence 10, Appli |
| 292 | 67 | 72.8 | 28 | 1 | US-08-240-711-21 | Sequence 21, Appli | 365 | 63 | 68.5 | 38 | 2 | US-08-954-915A-46 | Sequence 46, Appli |
| 293 | 67 | 72.8 | 28 | 1 | US-08-457-753-21 | Sequence 21, Appli | 366 | 63 | 68.5 | 45 | 2 | US-09-623-548A-514 | Sequence 514, App |
| 294 | 67 | 72.8 | 28 | 1 | US-08-470-846A-9 | Sequence 9, Appli | 367 | 63 | 68.5 | 45 | 2 | US-09-657-276-514 | Sequence 514, App |
| 295 | 67 | 72.8 | 28 | 1 | US-08-470-846A-27 | Sequence 27, Appli | 368 | 63 | 68.5 | 45 | 2 | US-07-781-590A-15 | Sequence 15, Appli |
| 296 | 67 | 72.8 | 28 | 2 | US-08-954-915A-51 | Sequence 51, Appli | 369 | 62 | 67.4 | 28 | 1 | US-08-470-846A-23 | Sequence 23, Appli |
| 297 | 67 | 72.8 | 28 | 2 | US-09-154-390-9 | Sequence 9, Appli | 370 | 62 | 67.4 | 28 | 1 | US-08-451-240-8 | Sequence 8, Appli |
| 298 | 67 | 72.8 | 28 | 2 | US-09-154-390-23 | Sequence 23, Appli | 371 | 61 | 66.3 | 20 | 6 | 5212286-54 | Patent No. 5212286 |
| 299 | 67 | 72.8 | 28 | 2 | US-09-154-390-27 | Sequence 27, Appli | 372 | 61 | 66.3 | 23 | 6 | 5212286-43 | Patent No. 5212286 |
| 300 | 67 | 72.8 | 28 | 2 | US-09-623-548A-486 | Sequence 486, App | 373 | 61 | 66.3 | 23 | 6 | 5212286-45 | Patent No. 5212286 |
| 301 | 67 | 72.8 | 28 | 4 | US-09-657-276-486 | Sequence 486, App | 374 | 61 | 66.3 | 23 | 6 | 5212286-53 | Patent No. 5212286 |
| 302 | 67 | 72.8 | 28 | 4 | PCT-US94-12591-9 | Sequence 9, Appli | 375 | 61 | 66.3 | 24 | 6 | 5212286-52 | Patent No. 5212286 |
| 303 | 67 | 72.8 | 28 | 6 | PCT-US94-12591-25 | Sequence 25, Appli | 376 | 61 | 66.3 | 25 | 6 | 5212286-31 | Patent No. 5212286 |
| 304 | 67 | 72.8 | 28 | 6 | 5204327-3 | Patent No. 5204327 | 377 | 61 | 66.3 | 25 | 6 | 5212286-33 | Patent No. 5212286 |
| 305 | 67 | 72.8 | 32 | 2 | US-08-954-915A-13 | Sequence 13, Appli | 378 | 61 | 66.3 | 28 | 1 | US-08-451-240-8 | Sequence 8, Appli |
| 306 | 67 | 72.8 | 32 | 2 | US-08-954-915A-29 | Sequence 29, Appli | 379 | 61 | 66.3 | 28 | 1 | US-08-470-846A-8 | Sequence 8, Appli |
| 307 | 67 | 72.8 | 32 | 2 | US-09-623-548A-490 | Sequence 490, App | 380 | 61 | 66.3 | 28 | 2 | US-09-154-390-8 | Sequence 8, Appli |
| 308 | 67 | 72.8 | 32 | 2 | US-09-657-276-490 | Sequence 490, App | 381 | 61 | 66.3 | 28 | 4 | PCT-US94-12591-8 | Sequence 8, Appli |
| 309 | 67 | 72.8 | 152 | 2 | US-08-916-043-2 | Sequence 2, Appli | 382 | 60 | 65.2 | 23 | 1 | US-07-781-590A-16 | Sequence 16, Appli |
| 310 | 67 | 72.8 | 152 | 2 | US-09-428-929-2 | Sequence 2, Appli | 383 | 60 | 65.2 | 28 | 1 | US-08-451-240-10 | Sequence 10, Appli |
| 311 | 67 | 72.8 | 152 | 6 | 5212286-6 | Patent No. 5212286 | 384 | 60 | 65.2 | 28 | 1 | US-08-451-240-23 | Sequence 23, Appli |
| 312 | 66 | 71.7 | 20 | 2 | US-09-579-883A-13 | Sequence 13, Appli | 385 | 60 | 65.2 | 28 | 1 | US-08-470-846A-10 | Sequence 10, Appli |
| 313 | 66 | 71.7 | 20 | 2 | US-09-623-548A-469 | Sequence 469, App | 386 | 60 | 65.2 | 28 | 1 | US-08-470-846A-25 | Sequence 25, Appli |
| 314 | 66 | 71.7 | 20 | 2 | US-09-657-276-469 | Sequence 469, App | 387 | 60 | 65.2 | 28 | 2 | US-09-154-390-10 | Sequence 10, Appli |
| 315 | 66 | 71.7 | 21 | 2 | US-09-623-548A-470 | Sequence 470, App | 388 | 60 | 65.2 | 28 | 4 | US-09-154-390-25 | Sequence 25, Appli |
| 316 | 66 | 71.7 | 21 | 2 | US-09-657-276-470 | Sequence 470, App | 389 | 60 | 65.2 | 28 | 2 | PCT-US94-12591-10 | Sequence 10, Appli |
| 317 | 66 | 71.7 | 22 | 1 | US-07-828-450-18 | Sequence 18, Appli | 390 | 60 | 65.2 | 28 | 4 | PCT-US94-12591-23 | Sequence 23, Appli |
| 318 | 66 | 71.7 | 23 | 6 | 5212286-48 | Patent No. 5212286 | 391 | 60 | 65.2 | 32 | 2 | US-08-954-915A-7 | Sequence 7, Appli |
| 319 | 66 | 71.7 | 24 | 1 | US-07-754-958-4 | Sequence 4, Appli | 392 | 60 | 65.2 | 32 | 2 | US-08-954-915A-8 | Sequence 8, Appli |

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| 393 | 59 | 64.1 | 20 | 1 | US-08-257-446-4 | Sequence 4, Appl | 466 | 48 | 52.2 | 22 | 2 | US-09-154-390-32 | Sequence 32, Appl |
| 394 | 59 | 64.1 | 28 | 1 | US-08-451-240-24 | Sequence 24, Appl | 467 | 48 | 52.2 | 22 | 4 | PCT-US94-12591-29 | Sequence 29, Appl |
| 395 | 59 | 64.1 | 28 | 1 | US-08-470-846A-26 | Sequence 26, Appl | 468 | 48 | 52.2 | 22 | 4 | PCT-US94-12591-30 | Sequence 30, Appl |
| 396 | 59 | 64.1 | 28 | 1 | US-09-154-390-26 | Sequence 26, Appl | 469 | 47 | 51.1 | 22 | 1 | US-08-451-240-20 | Sequence 20, Appl |
| 397 | 59 | 64.1 | 28 | 4 | PCT-US94-12591-24 | Sequence 24, Appl | 470 | 47 | 51.1 | 22 | 1 | US-08-470-846A-20 | Sequence 20, Appl |
| 398 | 58 | 63.0 | 17 | 1 | US-07-828-450-20 | Sequence 20, Appl | 471 | 47 | 51.1 | 22 | 2 | US-09-154-390-20 | Sequence 20, Appl |
| 399 | 57 | 62.0 | 20 | 1 | US-08-257-446-3 | Sequence 3, Appl | 472 | 47 | 51.1 | 22 | 4 | PCT-US94-12591-20 | Sequence 20, Appl |
| 400 | 57 | 62.0 | 28 | 1 | US-08-470-846A-22 | Sequence 22, Appl | 473 | 47 | 51.1 | 22 | 1 | US-08-451-240-17 | Sequence 17, Appl |
| 401 | 56 | 60.9 | 28 | 1 | US-08-451-240-11 | Sequence 11, Appl | 474 | 47 | 51.1 | 28 | 1 | US-08-451-240-31 | Sequence 31, Appl |
| 402 | 56 | 60.9 | 28 | 1 | US-08-451-240-34 | Sequence 34, Appl | 475 | 47 | 51.1 | 28 | 1 | US-08-470-846A-17 | Sequence 17, Appl |
| 403 | 56 | 60.9 | 28 | 1 | US-08-470-846A-11 | Sequence 11, Appl | 476 | 47 | 51.1 | 28 | 2 | US-09-154-390-17 | Sequence 17, Appl |
| 404 | 56 | 60.9 | 28 | 1 | US-08-470-846A-19 | Sequence 19, Appl | 477 | 47 | 51.1 | 28 | 2 | US-09-154-390-33 | Sequence 33, Appl |
| 405 | 56 | 60.9 | 28 | 1 | US-08-470-846A-31 | Sequence 31, Appl | 478 | 47 | 51.1 | 28 | 4 | PCT-US94-12591-17 | Sequence 17, Appl |
| 406 | 56 | 60.9 | 28 | 1 | US-08-470-846A-32 | Sequence 32, Appl | 479 | 47 | 51.1 | 28 | 1 | PCT-US94-12591-31 | Sequence 31, Appl |
| 407 | 56 | 60.9 | 28 | 2 | US-09-154-390-11 | Sequence 11, Appl | 480 | 47 | 51.1 | 29 | 1 | US-08-451-240-27 | Sequence 27, Appl |
| 408 | 56 | 60.9 | 28 | 2 | US-09-154-390-19 | Sequence 19, Appl | 481 | 47 | 51.1 | 29 | 1 | US-08-451-240-28 | Sequence 28, Appl |
| 409 | 56 | 60.9 | 28 | 2 | US-09-154-390-38 | Sequence 38, Appl | 482 | 47 | 51.1 | 29 | 1 | US-08-470-846A-29 | Sequence 29, Appl |
| 410 | 56 | 60.9 | 28 | 4 | PCT-US94-12591-11 | Sequence 11, Appl | 483 | 47 | 51.1 | 29 | 2 | US-09-154-390-29 | Sequence 29, Appl |
| 411 | 56 | 60.9 | 32 | 1 | US-08-451-240-15 | Sequence 15, Appl | 484 | 47 | 51.1 | 29 | 2 | US-09-154-390-30 | Sequence 30, Appl |
| 412 | 56 | 60.9 | 32 | 1 | US-08-470-846A-15 | Sequence 15, Appl | 485 | 47 | 51.1 | 29 | 4 | PCT-US94-12591-28 | Sequence 28, Appl |
| 413 | 56 | 60.9 | 32 | 1 | US-09-154-390-15 | Sequence 15, Appl | 486 | 47 | 51.1 | 29 | 4 | PCT-US94-12591-33 | Sequence 33, Appl |
| 414 | 56 | 60.9 | 32 | 4 | PCT-US94-12591-15 | Sequence 15, Appl | 487 | 46 | 50.0 | 23 | 1 | US-07-781-590A-2 | Sequence 2, Appl |
| 415 | 56 | 60.9 | 32 | 4 | PCT-US94-12591-15 | Sequence 15, Appl | 488 | 46 | 50.0 | 23 | 1 | US-07-781-590A-6 | Sequence 6, Appl |
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| 417 | 55 | 59.8 | 22 | 1 | US-07-828-450-21 | Sequence 21, Appl | 490 | 46 | 50.0 | 23 | 1 | US-07-781-590A-11 | Sequence 11, Appl |
| 418 | 55 | 59.8 | 27 | 1 | US-07-828-450-30 | Sequence 30, Appl | 491 | 45 | 48.9 | 27 | 1 | US-08-451-240-19 | Sequence 19, Appl |
| 419 | 55 | 59.8 | 28 | 1 | US-08-451-240-12 | Sequence 12, Appl | 492 | 45 | 48.9 | 27 | 1 | US-08-451-240-33 | Sequence 33, Appl |
| 420 | 55 | 59.8 | 28 | 1 | US-08-451-240-13 | Sequence 13, Appl | 493 | 45 | 48.9 | 27 | 2 | US-09-154-390-35 | Sequence 35, Appl |
| 421 | 55 | 59.8 | 28 | 1 | US-08-470-846A-12 | Sequence 12, Appl | 494 | 45 | 48.9 | 27 | 2 | US-09-154-390-36 | Sequence 36, Appl |
| 422 | 55 | 59.8 | 28 | 1 | US-08-470-846A-13 | Sequence 13, Appl | 495 | 45 | 48.9 | 27 | 2 | US-09-154-390-37 | Sequence 37, Appl |
| 423 | 55 | 59.8 | 28 | 2 | US-09-154-390-12 | Sequence 12, Appl | 496 | 45 | 48.9 | 27 | 4 | PCT-US94-12591-19 | Sequence 19, Appl |
| 424 | 55 | 59.8 | 28 | 2 | US-09-154-390-13 | Sequence 13, Appl | 497 | 45 | 48.9 | 27 | 4 | PCT-US94-12591-33 | Sequence 33, Appl |
| 425 | 55 | 59.8 | 28 | 4 | PCT-US94-12591-12 | Sequence 12, Appl | 498 | 45 | 48.9 | 29 | 1 | US-08-451-240-18 | Sequence 18, Appl |
| 426 | 55 | 59.8 | 28 | 4 | PCT-US94-12591-13 | Sequence 13, Appl | 499 | 45 | 48.9 | 29 | 2 | US-09-154-390-18 | Sequence 18, Appl |
| 427 | 55 | 59.8 | 32 | 2 | US-08-954-915A-9 | Sequence 9, Appl | 500 | 45 | 48.9 | 29 | 4 | PCT-US94-12591-18 | Sequence 18, Appl |
| 428 | 54 | 58.7 | 22 | 2 | US-09-466-268B-11 | Sequence 11, Appl | 501 | 44 | 47.8 | 28 | 2 | US-08-954-915A-50 | Sequence 50, Appl |
| 429 | 53 | 57.6 | 15 | 6 | 5212286-24 | Sequence 24, Appl | 502 | 43 | 46.7 | 21 | 2 | US-08-522-269B-5 | Sequence 5, Appl |
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| 431 | 52 | 56.5 | 13 | 2 | US-09-942-456-4 | Sequence 4, Appl | 504 | 43 | 46.7 | 23 | 1 | US-08-522-269B-11 | Sequence 11, Appl |
| 432 | 52 | 56.5 | 13 | 2 | US-09-510-721-4 | Sequence 4, Appl | 505 | 43 | 46.7 | 23 | 1 | US-09-294-923-11 | Sequence 3, Appl |
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| 436 | 52 | 56.5 | 22 | 1 | US-07-781-590A-17 | Sequence 17, Appl | 509 | 41 | 44.6 | 51 | 2 | US-09-270-767-40233 | Sequence 40233, A |
| 437 | 52 | 56.5 | 25 | 6 | 5212286-49 | Patent No. 5212286 | 510 | 41 | 44.6 | 51 | 2 | US-09-270-767-55449 | Sequence 55449, A |
| 438 | 51 | 55.4 | 28 | 1 | US-08-451-240-26 | Sequence 26, Appl | 511 | 41 | 44.6 | 192 | 2 | US-09-252-991A-20144 | Sequence 20144, A |
| 439 | 51 | 55.4 | 28 | 1 | US-08-451-240-37 | Sequence 37, Appl | 512 | 41 | 44.6 | 302 | 2 | US-09-854-133-397 | Sequence 397, App |
| 440 | 51 | 55.4 | 28 | 1 | US-08-470-846A-28 | Sequence 28, Appl | 513 | 41 | 44.6 | 389 | 2 | US-09-673-395A-487 | Sequence 487, App |
| 441 | 51 | 55.4 | 28 | 1 | US-08-470-846A-33 | Sequence 33, Appl | 514 | 41 | 44.6 | 389 | 2 | US-09-673-395A-621 | Sequence 621, App |
| 442 | 51 | 55.4 | 28 | 2 | US-09-154-390-28 | Sequence 28, Appl | 515 | 41 | 44.6 | 399 | 2 | US-09-673-395A-471 | Sequence 471, App |
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| 444 | 51 | 55.4 | 28 | 4 | PCT-US94-12591-35 | Sequence 35, Appl | 517 | 40 | 43.5 | 79 | 2 | US-09-902-540-11361 | Sequence 11361, A |
| 445 | 51 | 55.4 | 28 | 4 | PCT-US94-12591-36 | Sequence 36, Appl | 518 | 40 | 43.5 | 328 | 2 | US-09-270-767-42877 | Sequence 42877, A |
| 446 | 51 | 55.4 | 28 | 4 | PCT-US94-12591-37 | Sequence 37, Appl | 519 | 40 | 43.5 | 593 | 2 | US-09-302-626B-64 | Sequence 64, Appl |
| 447 | 50 | 54.3 | 28 | 1 | US-08-451-240-36 | Sequence 36, Appl | 520 | 40 | 43.5 | 733 | 2 | US-09-902-540-16379 | Sequence 16379, A |
| 448 | 50 | 54.3 | 28 | 2 | US-09-154-390-40 | Sequence 40, Appl | 521 | 40 | 43.5 | 4866 | 2 | US-09-424-783-2 | Sequence 2, Appl |
| 449 | 49 | 53.3 | 21 | 2 | US-09-623-548A-494 | Sequence 494, App | 522 | 40 | 43.5 | 4872 | 2 | US-09-424-783-3 | Sequence 3, Appl |
| 450 | 49 | 53.3 | 21 | 2 | US-09-657-376-494 | Sequence 494, App | 523 | 39.5 | 42.9 | 1589 | 2 | US-09-543-681A-4998 | Sequence 4998, App |
| 451 | 49 | 53.3 | 28 | 1 | US-08-451-240-16 | Sequence 16, Appl | 524 | 39 | 42.4 | 28 | 1 | US-08-470-846A-43 | Sequence 47, Appl |
| 452 | 49 | 53.3 | 28 | 1 | US-08-451-240-32 | Sequence 32, Appl | 525 | 39 | 42.4 | 30 | 1 | US-08-451-240-47 | Sequence 47, Appl |
| 453 | 49 | 53.3 | 28 | 1 | US-08-451-240-35 | Sequence 35, Appl | 526 | 39 | 42.4 | 30 | 1 | PCT-US94-12591-47 | Sequence 47, Appl |
| 454 | 49 | 53.3 | 28 | 1 | US-08-470-846A-16 | Sequence 16, Appl | 527 | 39 | 42.4 | 162 | 2 | US-09-270-767-45268 | Sequence 45268, A |
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| 458 | 49 | 53.3 | 28 | 4 | PCT-US94-12591-16 | Sequence 16, Appl | 531 | 39 | 42.4 | 1437 | 2 | US-09-824-574-2 | Sequence 2, Appl |
| 459 | 49 | 53.3 | 28 | 4 | PCT-US94-12591-32 | Sequence 32, Appl | 532 | 39 | 42.4 | 1466 | 2 | US-08-286-819A-27 | Sequence 27, Appl |
| 460 | 49 | 53.3 | 28 | 4 | PCT-US94-12591-35 | Sequence 35, Appl | 533 | 38.5 | 41.8 | 2296 | 1 | US-08-380-357-27 | Sequence 27, Appl |
| 461 | 49 | 53.3 | 32 | 2 | US-08-954-915A-10 | Sequence 10, Appl | 534 | 38.5 | 41.8 | 2296 | 2 | US-08-357-375-27 | Sequence 27, Appl |
| 462 | 48 | 52.2 | 22 | 1 | US-08-451-240-29 | Sequence 29, Appl | 535 | 38.5 | 41.8 | 2296 | 2 | 5212286-46 | Patent No. 5212286 |
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| 464 | 48 | 52.2 | 22 | 1 | US-08-470-846A-21 | Sequence 21, Appl | 537 | 38 | 41.3 | 15 | 2 | US-09-657-276-493 | Sequence 493, App |
| 465 | 48 | 52.2 | 22 | 2 | US-09-154-390-31 | Sequence 31, Appl | 538 | 38 | 41.3 | 15 | 2 | | |

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| 539 | 38 | 41.3 | 19 | 1 | US-07-828-450-32 | Sequence 32, Appl | 612 | 36 | 39.1 | 41 | 1 | US-07-924-753-1 | Sequence 1, Appl |
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| 544 | 38 | 41.3 | 144 | 2 | US-09-439-313-480 | Sequence 480, App | 617 | 36 | 39.1 | 112 | 2 | US-09-902-540-16502 | Sequence 16502, A |
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| 547 | 38 | 41.3 | 144 | 2 | US-09-679-426-480 | Sequence 480, App | 620 | 36 | 39.1 | 221 | 2 | US-09-902-540-15515 | Sequence 15515, A |
| 548 | 38 | 41.3 | 144 | 2 | US-09-759-143-480 | Sequence 480, App | 621 | 36 | 39.1 | 230 | 2 | US-10-101-464A-707 | Sequence 707, App |
| 549 | 38 | 41.3 | 144 | 2 | US-09-651-236-480 | Sequence 480, App | 622 | 36 | 39.1 | 334 | 2 | US-09-252-991A-27242 | Sequence 27242, A |
| 550 | 38 | 41.3 | 144 | 2 | US-09-657-279-480 | Sequence 480, App | 623 | 36 | 39.1 | 398 | 2 | US-09-538-092-1281 | Sequence 1281, Ap |
| 551 | 38 | 41.3 | 155 | 2 | US-10-012-896-480 | Sequence 480, App | 624 | 36 | 39.1 | 338 | 2 | US-09-949-016-7300 | Sequence 7300, Ap |
| 552 | 38 | 41.3 | 155 | 2 | US-09-252-991A-28474 | Sequence 28474, A | 625 | 36 | 39.1 | 394 | 2 | US-09-048-473-2 | Sequence 2, Appl |
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| 555 | 37 | 40.2 | 10 | 6 | 5212286-7 | Patent No. 5212286 | 628 | 36 | 39.1 | 605 | 2 | US-08-753-007A-2 | Sequence 2, Appl |
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| 557 | 37 | 40.2 | 30 | 2 | US-09-657-276-22 | Sequence 22, Appl | 630 | 36 | 39.1 | 706 | 2 | US-09-252-991A-32448 | Sequence 32448, A |
| 558 | 37 | 40.2 | 86 | 2 | US-09-270-767-60103 | Sequence 60103, A | 631 | 36 | 39.1 | 728 | 2 | US-09-747-259-18 | Sequence 18, Appl |
| 559 | 37 | 40.2 | 103 | 2 | US-09-134-000C-4249 | Sequence 4249, Ap | 632 | 36 | 39.1 | 728 | 2 | US-09-816-744-18 | Sequence 18, Appl |
| 560 | 37 | 40.2 | 159 | 2 | US-09-252-991A-21183 | Sequence 21183, A | 633 | 36 | 39.1 | 728 | 2 | US-10-104-047-3399 | Sequence 3399, Ap |
| 561 | 37 | 40.2 | 164 | 2 | US-09-621-976-480A | Sequence 480A, Ap | 634 | 36 | 39.1 | 733 | 2 | US-09-073-587-3 | Sequence 3, Appl |
| 562 | 37 | 40.2 | 168 | 2 | US-09-252-991A-21681 | Sequence 21681, A | 635 | 36 | 39.1 | 754 | 1 | US-08-525-864A-2 | Sequence 2, Appl |
| 563 | 37 | 40.2 | 186 | 2 | US-08-252-991A-30658 | Sequence 30658, A | 636 | 36 | 39.1 | 871 | 2 | US-09-245-041-19 | Sequence 19, Appl |
| 564 | 37 | 40.2 | 188 | 2 | US-09-489-039A-13345 | Sequence 13345, A | 637 | 36 | 39.1 | 871 | 2 | US-09-358-055B-19 | Sequence 19, Appl |
| 565 | 37 | 40.2 | 241 | 2 | US-10-360-101-223 | Sequence 13345, A | 638 | 36 | 39.1 | 871 | 2 | US-09-893-238-19 | Sequence 19, Appl |
| 566 | 37 | 40.2 | 246 | 2 | US-10-104-047-2195 | Sequence 223, App | 639 | 36 | 39.1 | 1045 | 2 | US-09-252-991A-17661 | Sequence 17661, A |
| 567 | 37 | 40.2 | 267 | 2 | US-09-949-016-6007 | Sequence 6007, Ap | 640 | 36 | 39.1 | 1350 | 2 | US-09-245-041-17 | Sequence 17, Appl |
| 568 | 37 | 40.2 | 291 | 2 | US-09-949-016-9125 | Sequence 9125, Ap | 641 | 36 | 39.1 | 1350 | 2 | US-09-358-055B-17 | Sequence 17, Appl |
| 569 | 37 | 40.2 | 295 | 2 | US-09-949-016-7683 | Sequence 7683, Ap | 642 | 36 | 39.1 | 1350 | 2 | US-09-893-238-17 | Sequence 17, Appl |
| 570 | 37 | 40.2 | 327 | 2 | US-08-679-493A-71 | Sequence 71, Appl | 643 | 35.5 | 38.6 | 146 | 2 | US-09-732-210-1431 | Sequence 1431, Ap |
| 571 | 37 | 40.2 | 349 | 2 | US-09-328-352-7078 | Sequence 7078, Ap | 644 | 35.5 | 38.6 | 154 | 2 | US-09-489-039A-13897 | Sequence 13897, A |
| 572 | 37 | 40.2 | 361 | 2 | US-09-810-836B-2 | Sequence 2, Appl | 645 | 35.5 | 38.6 | 485 | 1 | US-08-453-956-15 | Sequence 15, Appl |
| 573 | 37 | 40.2 | 367 | 2 | US-09-170-767-44650 | Sequence 44650, A | 646 | 35.5 | 38.6 | 485 | 1 | US-08-086-631-15 | Sequence 15, Appl |
| 574 | 37 | 40.2 | 379 | 2 | US-09-307-532A-3904 | Sequence 3904, Ap | 647 | 35.5 | 38.6 | 485 | 1 | US-08-452-930-15 | Sequence 15, Appl |
| 575 | 37 | 40.2 | 513 | 2 | US-10-012-231A-385 | Sequence 385, App | 648 | 35.5 | 38.6 | 485 | 2 | US-10-010-065-2 | Sequence 2, Appl |
| 576 | 37 | 40.2 | 513 | 2 | US-10-015-389A-385 | Sequence 385, App | 649 | 35.5 | 38.6 | 485 | 4 | PCT-US93-08174-15 | Sequence 15, Appl |
| 577 | 37 | 40.2 | 513 | 2 | US-10-006-768A-385 | Sequence 385, App | 650 | 35.5 | 38.6 | 801 | 2 | US-09-270-767-44264 | Sequence 44264, A |
| 578 | 37 | 40.2 | 513 | 2 | US-10-015-671A-385 | Sequence 385, App | 651 | 35 | 38.0 | 15 | 2 | US-09-405-745-2 | Sequence 2, Appl |
| 579 | 37 | 40.2 | 513 | 2 | US-10-015-393A-385 | Sequence 385, App | 652 | 35 | 38.0 | 28 | 1 | US-08-202-525-1 | Sequence 1, Appl |
| 580 | 37 | 40.2 | 513 | 2 | US-10-011-833A-385 | Sequence 385, App | 653 | 35 | 38.0 | 56 | 2 | US-09-205-258-748 | Sequence 748, App |
| 581 | 37 | 40.2 | 513 | 2 | US-10-006-041A-385 | Sequence 385, App | 654 | 35 | 38.0 | 56 | 2 | US-10-004-860-748 | Sequence 748, App |
| 582 | 37 | 40.2 | 513 | 2 | US-10-012-064A-385 | Sequence 385, App | 655 | 35 | 38.0 | 62 | 2 | US-09-270-767-32593 | Sequence 32593, A |
| 583 | 37 | 40.2 | 536 | 2 | US-09-902-540-10962 | Sequence 10962, A | 656 | 35 | 38.0 | 62 | 2 | US-09-270-767-47810 | Sequence 47810, A |
| 584 | 37 | 40.2 | 557 | 2 | US-09-489-039A-9672 | Sequence 9672, Ap | 657 | 35 | 38.0 | 99 | 2 | US-09-950-933A-83 | Sequence 83, Appl |
| 585 | 37 | 40.2 | 561 | 2 | US-09-949-016-8161 | Sequence 8161, Ap | 658 | 35 | 38.0 | 103 | 2 | US-09-252-991A-16712 | Sequence 16712, A |
| 586 | 37 | 40.2 | 580 | 2 | US-09-556-916-18 | Sequence 18, Appl | 659 | 35 | 38.0 | 111 | 2 | US-08-899-330-5 | Sequence 5, Appl |
| 587 | 37 | 40.2 | 580 | 2 | US-09-556-916-24 | Sequence 24, Appl | 660 | 35 | 38.0 | 111 | 2 | US-08-756-541-5 | Sequence 5, Appl |
| 588 | 37 | 40.2 | 581 | 2 | US-09-556-916-6 | Sequence 6, Appl | 661 | 35 | 38.0 | 151 | 2 | US-09-732-210-1353 | Sequence 1353, Ap |
| 589 | 37 | 40.2 | 581 | 2 | US-09-556-916-12 | Sequence 12, Appl | 662 | 35 | 38.0 | 155 | 2 | US-09-543-681A-7630 | Sequence 7630, Ap |
| 590 | 37 | 40.2 | 626 | 2 | US-09-556-916-14 | Sequence 14, Appl | 663 | 35 | 38.0 | 155 | 2 | US-09-248-796A-25902 | Sequence 25902, A |
| 591 | 37 | 40.2 | 626 | 2 | US-09-556-916-16 | Sequence 16, Appl | 664 | 35 | 38.0 | 156 | 2 | US-09-270-767-34637 | Sequence 34637, A |
| 592 | 37 | 40.2 | 626 | 2 | US-09-556-916-20 | Sequence 20, Appl | 665 | 35 | 38.0 | 156 | 2 | US-09-270-767-49854 | Sequence 49854, A |
| 593 | 37 | 40.2 | 626 | 2 | US-09-556-916-22 | Sequence 22, Appl | 666 | 35 | 38.0 | 159 | 2 | US-09-270-767-41393 | Sequence 41393, A |
| 594 | 37 | 40.2 | 627 | 2 | US-09-556-916-2 | Sequence 2, Appl | 667 | 35 | 38.0 | 159 | 2 | US-09-270-767-56609 | Sequence 56609, A |
| 595 | 37 | 40.2 | 627 | 2 | US-09-556-916-4 | Sequence 4, Appl | 668 | 35 | 38.0 | 172 | 2 | US-09-252-991A-17189 | Sequence 17189, A |
| 596 | 37 | 40.2 | 637 | 2 | US-09-556-916-8 | Sequence 8, Appl | 669 | 35 | 38.0 | 194 | 1 | US-08-616-368A-11 | Sequence 11, Appl |
| 597 | 37 | 40.2 | 627 | 2 | US-09-556-916-10 | Sequence 10, Appl | 670 | 35 | 38.0 | 194 | 2 | US-09-054-298-11 | Sequence 11, Appl |
| 598 | 37 | 40.2 | 627 | 2 | US-09-949-016-6840 | Sequence 6840, Ap | 671 | 35 | 38.0 | 194 | 2 | US-08-818-655-11 | Sequence 11, Appl |
| 599 | 37 | 40.2 | 646 | 2 | US-09-543-681A-6638 | Sequence 6638, Ap | 672 | 35 | 38.0 | 194 | 2 | US-09-305-839-11 | Sequence 11, Appl |
| 600 | 37 | 40.2 | 679 | 2 | US-09-302-620B-83 | Sequence 83, Appl | 673 | 35 | 38.0 | 202 | 2 | US-09-252-991A-25244 | Sequence 25244, A |
| 601 | 37 | 40.2 | 679 | 2 | US-09-302-620B-84 | Sequence 84, Appl | 674 | 35 | 38.0 | 205 | 2 | US-09-252-991A-25485 | Sequence 25485, A |
| 602 | 37 | 40.2 | 679 | 2 | US-09-912-161-4 | Sequence 4, Appl | 675 | 35 | 38.0 | 216 | 2 | US-09-252-991A-20124 | Sequence 20124, A |
| 603 | 37 | 40.2 | 679 | 2 | US-09-912-161-6 | Sequence 6, Appl | 676 | 35 | 38.0 | 231 | 2 | US-09-489-039A-14299 | Sequence 14299, A |
| 604 | 37 | 40.2 | 679 | 2 | US-09-911-781-11 | Sequence 11, Appl | 677 | 35 | 38.0 | 234 | 2 | US-09-252-991A-23005 | Sequence 23005, A |
| 605 | 37 | 40.2 | 679 | 2 | US-10-400-902-11 | Sequence 11, Appl | 678 | 35 | 38.0 | 275 | 2 | US-09-328-352-7552 | Sequence 7552, Ap |
| 606 | 37 | 40.2 | 819 | 2 | US-09-651-656-15 | Sequence 15, Appl | 679 | 35 | 38.0 | 298 | 2 | US-09-270-767-32340 | Sequence 32340, A |
| 607 | 37 | 40.2 | 819 | 2 | US-09-650-855-15 | Sequence 15, Appl | 680 | 35 | 38.0 | 298 | 2 | US-09-270-767-47557 | Sequence 47557, A |
| 608 | 37 | 40.2 | 945 | 2 | US-09-248-796A-15743 | Sequence 15743, A | 681 | 35 | 38.0 | 315 | 2 | US-09-270-767-43782 | Sequence 43782, A |
| 609 | 37 | 40.2 | 1075 | 4 | PCT-US94-07297-41 | Sequence 41, Appl | 682 | 35 | 38.0 | 337 | 2 | US-09-270-767-46773 | Sequence 46773, A |
| 610 | 37 | 40.2 | 5032 | 2 | US-09-538-092-979 | Sequence 979, App | 683 | 35 | 38.0 | 365 | 2 | US-09-949-016-7947 | Sequence 7947, Ap |
| 611 | 37 | 40.2 | 5037 | 2 | US-09-424-783-4 | Sequence 4, Appl | 684 | 35 | 38.0 | 383 | 2 | US-09-949-016-6053 | Sequence 6053, Ap |

| | | | | | | | | | | | | | |
|-----|------|------|------|---|----------------------|-------------------|-----|------|------|------|---|----------------------|-------------------|
| 685 | 35 | 38.0 | 415 | 2 | US-09-252-991A-31892 | Sequence 31892, A | 758 | 34 | 37.0 | 367 | 2 | US-08-809-286B-2 | Sequence 2, Appli |
| 686 | 35 | 38.0 | 433 | 2 | US-09-949-016-10233 | Sequence 10233, A | 759 | 34 | 37.0 | 367 | 2 | US-09-778-427-2 | Sequence 2, Appli |
| 687 | 35 | 38.0 | 441 | 2 | US-09-107-433-4780 | Sequence 4780, Ap | 760 | 34 | 37.0 | 368 | 2 | US-09-198-452A-635 | Sequence 635, App |
| 688 | 35 | 38.0 | 448 | 2 | US-09-134-000C-6746 | Sequence 6746, Ap | 761 | 34 | 37.0 | 368 | 2 | US-09-438-185A-595 | Sequence 595, App |
| 689 | 35 | 38.0 | 479 | 2 | US-09-252-991A-18876 | Sequence 18876, A | 762 | 34 | 37.0 | 371 | 2 | US-09-501-115-14 | Sequence 14, Appl |
| 690 | 35 | 38.0 | 494 | 2 | US-09-583-110-4005 | Sequence 4005, Ap | 763 | 34 | 37.0 | 371 | 2 | US-10-357-886-14 | Sequence 14, Appl |
| 691 | 35 | 38.0 | 495 | 2 | US-09-248-796A-14275 | Sequence 14275, A | 764 | 34 | 37.0 | 378 | 2 | US-09-967-552A-38 | Sequence 38, Appl |
| 692 | 35 | 38.0 | 615 | 2 | US-09-252-991A-27273 | Sequence 27273, A | 765 | 34 | 37.0 | 404 | 2 | US-09-248-796A-16463 | Sequence 16463, A |
| 693 | 35 | 38.0 | 782 | 2 | US-09-949-016-6943 | Sequence 6943, Ap | 766 | 34 | 37.0 | 406 | 2 | US-09-252-991A-20630 | Sequence 20630, A |
| 694 | 35 | 38.0 | 793 | 2 | US-09-949-016-8365 | Sequence 8365, Ap | 767 | 34 | 37.0 | 419 | 2 | US-08-115-753-2 | Sequence 2, Appli |
| 695 | 35 | 38.0 | 869 | 2 | US-09-489-039A-7727 | Sequence 7727, Ap | 768 | 34 | 37.0 | 419 | 2 | US-08-115-753-33 | Sequence 33, Appl |
| 696 | 35 | 38.0 | 1016 | 2 | US-09-949-016-11018 | Sequence 11018, A | 769 | 34 | 37.0 | 437 | 2 | US-09-949-016-6542 | Sequence 6542, Ap |
| 697 | 35 | 38.0 | 1059 | 2 | US-09-394-272-5 | Sequence 5, Appli | 770 | 34 | 37.0 | 439 | 2 | US-08-952-457-2 | Sequence 2, Appli |
| 698 | 35 | 38.0 | 1140 | 1 | US-08-657-641-7 | Sequence 7, Appli | 771 | 34 | 37.0 | 439 | 2 | US-08-952-457-3 | Sequence 3, Appli |
| 699 | 35 | 38.0 | 1140 | 4 | PCT-US94-07233-7 | Sequence 7, Appli | 772 | 34 | 37.0 | 443 | 2 | US-09-949-016-11402 | Sequence 11402, A |
| 700 | 35 | 38.0 | 1166 | 2 | US-10-104-047-2949 | Sequence 2949, Ap | 773 | 34 | 37.0 | 445 | 2 | US-09-489-039A-13869 | Sequence 13869, A |
| 701 | 35 | 38.0 | 1495 | 2 | US-09-543-681A-5986 | Sequence 5986, Ap | 774 | 34 | 37.0 | 460 | 2 | US-09-198-452A-7 | Sequence 7, Appli |
| 702 | 35 | 38.0 | 1522 | 2 | US-10-144-198-31 | Sequence 31, Appl | 775 | 34 | 37.0 | 460 | 2 | US-09-438-185A-1071 | Sequence 1071, Ap |
| 703 | 35 | 38.0 | 4328 | 2 | US-09-036-987A-5 | Sequence 5, Appli | 776 | 34 | 37.0 | 483 | 1 | US-08-194-338-7 | Sequence 7, Appli |
| 704 | 35 | 38.0 | 4928 | 2 | US-09-370-700-5 | Sequence 5, Appli | 777 | 34 | 37.0 | 543 | 1 | US-09-252-991A-29830 | Sequence 29830, A |
| 705 | 35 | 38.0 | 4928 | 2 | US-09-603-207-5 | Sequence 5, Appli | 778 | 34 | 37.0 | 546 | 1 | US-08-942-423-4 | Sequence 4, Appli |
| 706 | 34.5 | 37.5 | 84 | 2 | US-09-905-223-432 | Sequence 597, App | 779 | 34 | 37.0 | 546 | 2 | US-08-630-915A-14 | Sequence 14, Appl |
| 707 | 34.5 | 37.5 | 134 | 2 | US-09-640-211A-597 | Sequence 597, App | 780 | 34 | 37.0 | 546 | 2 | US-09-879-957-14 | Sequence 14, Appl |
| 708 | 34.5 | 37.5 | 165 | 2 | US-09-252-991A-31106 | Sequence 31106, A | 781 | 34 | 37.0 | 550 | 2 | US-09-538-092-1324 | Sequence 1324, Ap |
| 709 | 34.5 | 37.5 | 311 | 1 | US-08-794-216-1 | Sequence 1, Appli | 782 | 34 | 37.0 | 553 | 2 | US-09-514-245-4 | Sequence 4, Appli |
| 710 | 34.5 | 37.5 | 311 | 2 | US-09-520-781-18 | Sequence 18, Appl | 783 | 34 | 37.0 | 556 | 2 | US-09-270-767-41922 | Sequence 41922, A |
| 711 | 34.5 | 37.5 | 311 | 2 | US-09-957-187-18 | Sequence 18, Appl | 784 | 34 | 37.0 | 559 | 1 | US-09-052-339-1 | Sequence 1, Appli |
| 712 | 34.5 | 37.5 | 311 | 2 | US-09-991-053-18 | Sequence 18, Appl | 785 | 34 | 37.0 | 559 | 2 | US-09-385-742B-1 | Sequence 1, Appli |
| 713 | 34.5 | 37.5 | 311 | 2 | US-09-911-053-18 | Sequence 18, Appl | 786 | 34 | 37.0 | 559 | 2 | US-09-989-786-1 | Sequence 1, Appli |
| 714 | 34.5 | 37.5 | 570 | 2 | US-09-902-540-16111 | Sequence 16111, A | 787 | 34 | 37.0 | 622 | 2 | US-09-807-123-2 | Sequence 2, Appli |
| 715 | 34.5 | 37.5 | 1245 | 2 | US-09-252-991A-30935 | Sequence 30935, A | 788 | 34 | 37.0 | 643 | 2 | US-09-252-991A-27587 | Sequence 27587, A |
| 716 | 34 | 37.0 | 27 | 2 | US-09-364-956-43 | Sequence 43, Appl | 789 | 34 | 37.0 | 643 | 2 | US-09-232-191-33 | Sequence 33, Appl |
| 717 | 34 | 37.0 | 43 | 2 | US-09-027-108C-6 | Sequence 6, Appli | 790 | 34 | 37.0 | 643 | 2 | US-09-232-200-83 | Sequence 83, Appl |
| 718 | 34 | 37.0 | 76 | 2 | US-10-318-675-74 | Sequence 74, Appl | 791 | 34 | 37.0 | 643 | 2 | US-09-232-197-83 | Sequence 83, Appl |
| 719 | 34 | 37.0 | 76 | 2 | US-09-270-767-34207 | Sequence 34207, A | 792 | 34 | 37.0 | 643 | 2 | US-09-232-201-83 | Sequence 83, Appl |
| 720 | 34 | 37.0 | 111 | 2 | US-08-899-330-6 | Sequence 6, Appli | 793 | 34 | 37.0 | 643 | 2 | US-09-232-195-83 | Sequence 83, Appl |
| 721 | 34 | 37.0 | 111 | 2 | US-09-756-541-6 | Sequence 115, App | 794 | 34 | 37.0 | 659 | 2 | US-09-626-589-2 | Sequence 2, Appli |
| 722 | 34 | 37.0 | 116 | 2 | US-09-482-273-115 | Sequence 115, App | 795 | 34 | 37.0 | 676 | 2 | US-09-003-574-34 | Sequence 34, Appl |
| 723 | 34 | 37.0 | 123 | 2 | US-09-489-039A-7992 | Sequence 7992, Ap | 796 | 34 | 37.0 | 676 | 2 | US-09-003-570-34 | Sequence 34, Appl |
| 724 | 34 | 37.0 | 127 | 2 | US-09-489-039A-8856 | Sequence 8856, Ap | 797 | 34 | 37.0 | 676 | 2 | US-09-864-541A-34 | Sequence 34, Appl |
| 725 | 34 | 37.0 | 127 | 2 | US-09-270-767-5914 | Sequence 5914, A | 798 | 34 | 37.0 | 678 | 2 | US-09-270-767-42257 | Sequence 42257, A |
| 726 | 34 | 37.0 | 132 | 2 | US-09-589-892B-13 | Sequence 13, Appl | 799 | 34 | 37.0 | 708 | 2 | US-09-857-556A-12 | Sequence 12, Appl |
| 727 | 34 | 37.0 | 133 | 2 | US-09-270-767-39478 | Sequence 39478, A | 800 | 34 | 37.0 | 717 | 2 | US-09-626-589-1 | Sequence 1, Appli |
| 728 | 34 | 37.0 | 133 | 2 | US-09-270-767-54695 | Sequence 54695, A | 801 | 34 | 37.0 | 719 | 2 | US-09-857-556A-33 | Sequence 33, Appl |
| 729 | 34 | 37.0 | 135 | 2 | US-09-252-991A-28251 | Sequence 28251, A | 802 | 34 | 37.0 | 721 | 2 | US-09-857-556A-10 | Sequence 10, Appl |
| 730 | 34 | 37.0 | 147 | 2 | US-09-482-273-209 | Sequence 209, App | 803 | 34 | 37.0 | 824 | 2 | US-09-626-589-3 | Sequence 3, Appli |
| 731 | 34 | 37.0 | 155 | 2 | US-09-640-211A-2128 | Sequence 2128, Ap | 804 | 34 | 37.0 | 925 | 2 | US-09-949-016-6086 | Sequence 6086, Ap |
| 732 | 34 | 37.0 | 188 | 2 | US-09-270-767-40814 | Sequence 40814, A | 805 | 34 | 37.0 | 925 | 2 | US-09-252-991A-27057 | Sequence 27057, A |
| 733 | 34 | 37.0 | 188 | 2 | US-09-270-767-56030 | Sequence 56030, A | 806 | 34 | 37.0 | 1013 | 2 | US-09-062-126-3 | Sequence 3, Appli |
| 734 | 34 | 37.0 | 202 | 2 | US-09-270-767-31876 | Sequence 31876, A | 807 | 34 | 37.0 | 1022 | 2 | US-08-772-270A-2 | Sequence 2, Appli |
| 735 | 34 | 37.0 | 202 | 2 | US-09-270-767-47093 | Sequence 47093, A | 808 | 34 | 37.0 | 1087 | 2 | US-09-918-909A-24 | Sequence 24, Appl |
| 736 | 34 | 37.0 | 202 | 2 | US-09-248-796A-15465 | Sequence 15465, A | 809 | 34 | 37.0 | 1722 | 2 | US-09-538-092-1033 | Sequence 1033, Ap |
| 737 | 34 | 37.0 | 204 | 2 | US-09-489-039A-7643 | Sequence 7643, Ap | 810 | 34 | 37.0 | 2375 | 2 | US-09-538-092-1131 | Sequence 1131, Ap |
| 738 | 34 | 37.0 | 210 | 1 | US-08-320-559-4 | Sequence 4, Appli | 811 | 34 | 37.0 | 2476 | 2 | US-09-824-574-7 | Sequence 7, Appli |
| 739 | 34 | 37.0 | 210 | 1 | US-08-327-392-4 | Sequence 4, Appli | 812 | 33.5 | 36.4 | 135 | 1 | US-08-687-916-20 | Sequence 20, Appl |
| 740 | 34 | 37.0 | 210 | 2 | US-08-545-860D-4 | Sequence 4, Appli | 813 | 33.5 | 36.4 | 135 | 2 | US-09-138-614-20 | Sequence 20, Appl |
| 741 | 34 | 37.0 | 210 | 4 | PCT-US94-04496-4 | Sequence 4, Appli | 814 | 33.5 | 36.4 | 272 | 2 | US-09-270-767-46084 | Sequence 46084, A |
| 742 | 34 | 37.0 | 268 | 2 | US-09-270-767-32030 | Sequence 32030, A | 815 | 33.5 | 36.4 | 294 | 1 | US-09-258-371-10 | Sequence 10, Appl |
| 743 | 34 | 37.0 | 269 | 2 | US-09-270-767-46698 | Sequence 46698, A | 816 | 33.5 | 36.4 | 294 | 2 | US-08-751-230-10 | Sequence 10, Appl |
| 744 | 34 | 37.0 | 271 | 2 | US-09-270-767-44475 | Sequence 44475, A | 817 | 33.5 | 36.4 | 294 | 2 | US-09-499-082-10 | Sequence 10, Appl |
| 745 | 34 | 37.0 | 272 | 2 | US-09-199-637A-285 | Sequence 285, App | 818 | 33.5 | 36.4 | 294 | 2 | US-09-258-372-10 | Sequence 10, Appl |
| 746 | 34 | 37.0 | 272 | 2 | US-09-252-991A-21429 | Sequence 21429, A | 819 | 33.5 | 36.4 | 294 | 2 | US-09-006-783A-3 | Sequence 3, Appli |
| 747 | 34 | 37.0 | 272 | 2 | US-09-270-767-43982 | Sequence 43982, A | 820 | 33.5 | 36.4 | 294 | 2 | US-09-159-871-2 | Sequence 2, Appli |
| 748 | 34 | 37.0 | 313 | 2 | US-09-800-729-196 | Sequence 196, App | 821 | 33.5 | 36.4 | 294 | 2 | US-09-442-013-12 | Sequence 12, Appl |
| 749 | 34 | 37.0 | 322 | 2 | US-09-134-001C-5120 | Sequence 5120, Ap | 822 | 33.5 | 36.4 | 294 | 2 | US-09-532-868-10 | Sequence 10, Appl |
| 750 | 34 | 37.0 | 327 | 1 | US-08-907-674-3 | Sequence 3, Appli | 823 | 33.5 | 36.4 | 294 | 2 | US-09-451-739H-19 | Sequence 19, Appl |
| 751 | 34 | 37.0 | 327 | 1 | US-09-215-087-3 | Sequence 3, Appli | 824 | 33.5 | 36.4 | 294 | 2 | US-09-602-362B-19 | Sequence 19, Appl |
| 752 | 34 | 37.0 | 327 | 2 | US-09-391-959-3 | Sequence 3, Appli | 825 | 33.5 | 36.4 | 294 | 2 | US-09-540-236-3296 | Sequence 3296, Ap |
| 753 | 34 | 37.0 | 327 | 2 | US-09-252-991A-16998 | Sequence 16998, A | 826 | 33.5 | 36.4 | 342 | 2 | US-09-409-016-7625 | Sequence 7625, Ap |
| 754 | 34 | 37.0 | 330 | 2 | US-08-115-753-1 | Sequence 1, Appli | 827 | 33.5 | 36.4 | 342 | 2 | US-09-949-016-9110 | Sequence 9110, Ap |
| 755 | 34 | 37.0 | 347 | 2 | US-09-252-991A-19006 | Sequence 19006, A | 828 | 33.5 | 36.4 | 355 | 2 | US-09-252-991A-23003 | Sequence 23003, A |
| 756 | 34 | 37.0 | 365 | 2 | US-09-697-367-8 | Sequence 8, Appli | 829 | 33.5 | 36.4 | 491 | 1 | US-08-687-916-23 | Sequence 23, Appl |
| 757 | 34 | 37.0 | 365 | 2 | US-09-918-909A-8 | Sequence 8, Appli | 830 | 33.5 | 36.4 | 491 | 2 | US-09-138-614-23 | Sequence 23, Appl |

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|-----|------|------|------|---|----------------------|--------------------|-----|----|------|-----|---|----------------------|--------------------|
| 831 | 33.5 | 36.4 | 495 | 1 | US-08-687-916-22 | Sequence 22, Appl | 904 | 33 | 35.9 | 205 | 2 | US-09-252-991A-23460 | Sequence 23460, A |
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ALIGNMENTS

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; Patent No. 5948761
; GENERAL INFORMATION:
; APPLICANT: SEILHAMER, J.J.
; APPLICANT: LEWICKI, J.
; APPLICANT: SCARBOROUGH, R.M.
; TITLE OF INVENTION: RECOMBINANT TECHNIQUES FOR
; PRODUCTION OF BRAIN NATRIURETIC PEPTIDE
; NUMBER OF SEQUENCES: 50
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MORRISON & FOERSTER, LLP
; STREET: 2000 Pennsylvania Avenue, NW, Suite 5500
; CITY: Washington
; STATE: DC
; COUNTRY: USA
; ZIP: 20006-1888
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: Windows
; SOFTWARE: FASTSQ for Windows Version 2.0b
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; FILING DATE: 05-MAY-1997
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/477,226
; FILING DATE: 08-FEB-1990
; APPLICATION NUMBER: 07/299,880
; FILING DATE: 19-JAN-1989
; APPLICATION NUMBER: 07/206,470
; FILING DATE: 14-JUN-1988
; APPLICATION NUMBER: 07/200,383
; FILING DATE: 31-MAY-1988
; ATTORNEY/AGENT INFORMATION:
; NAME: Murashige, Kate H
; REGISTRATION NUMBER: 29,959
; REFERENCE/DOCKET NUMBER: 219002025212
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-887-1500
; TELEFAX: 202-822-0168
; TELEX:

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; Patent No. 6818619
; GENERAL INFORMATION:
; APPLICANT: Burnett, Jr., John C.
; APPLICANT: Lisy, Ondrej
; TITLE OF INVENTION: Chimeric natriuretic peptides
; FILE REFERENCE: 150.1990S2
; CURRENT APPLICATION NUMBER: US/10/106,806
; PRIOR FILING DATE: 2002-03-26
; PRIOR APPLICATION NUMBER: US 09/466,268
; PRIOR FILING DATE: 1999-12-17
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FASTSEQ for Windows Version 4.0
; SEQ ID NO 7
; LENGTH: 26
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-106-806-7

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; Patent No. 6897030
; GENERAL INFORMATION:
; APPLICANT: Seilhamer, Jeffrey J.
; APPLICANT: Lewicki, John
; APPLICANT: Scarborough, Robert M.
; APPLICANT: Porter, Gordon J.
; TITLE OF INVENTION: IMMUNOASSAYS FOR HUMAN AND CANINE BRAIN
; NATRIURETIC PEPTIDE
; FILE REFERENCE: 219002025213
; CURRENT APPLICATION NUMBER: US/09/902,517
; CURRENT FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/287,892
; PRIOR FILING DATE: 1999-04-07
; PRIOR APPLICATION NUMBER: 08/850,910
; PRIOR FILING DATE: 1997-05-05
; PRIOR APPLICATION NUMBER: 07/477,226
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; PRIOR APPLICATION NUMBER: 07/299,880
; PRIOR FILING DATE: 1989-01-19
; PRIOR APPLICATION NUMBER: 07/206,470
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STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/451,240
FILING DATE:
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/362552
FILING DATE: 06-JAN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/152994
FILING DATE: 12-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Kubinec, Jeffrey S.
REGISTRATION NUMBER: 36,575
REFERENCE/DOCKET NUMBER: P0844P1C1
TELEPHONE: 415/225-8228
TELEFAX: 415/952-9881
TELEX: 910/371-7168
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US-08-451-240-3
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US-08-451-240-22
Sequence 22, Application US/08451240
Patent No. 5665704
GENERAL INFORMATION:
APPLICANT: Lowe, David
APPLICANT: Cunningham, Brian
APPLICANT: Oare, David
APPLICANT: McDowell, Robert S.
TITLE OF INVENTION: RECEPTOR SPECIFIC ATRIAL NATRIURETIC
TITLE OF INVENTION: PEPTIDES
NUMBER OF SEQUENCES: 47
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/451,240
FILING DATE:
CLASSIFICATION: 530

PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/362552
FILING DATE: 06-JAN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/152994
FILING DATE: 12-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Kubinec, Jeffrey S.
REGISTRATION NUMBER: 36,575
REFERENCE/DOCKET NUMBER: P0844P1C1
TELEPHONE: 415/225-8228
TELEFAX: 415/952-9881
TELEX: 910/371-7168
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Sequence 3, Application US/08470846A
Patent No. 5846932
GENERAL INFORMATION:
APPLICANT: Genentech, Inc.
APPLICANT: Lowe, David G.
APPLICANT: Cunningham, Brian C.
APPLICANT: Oare, David
APPLICANT: McDowell, Robert S.
TITLE OF INVENTION: RECEPTOR SPECIFIC ATRIAL NATRIURETIC PEPTIDES
NUMBER OF SEQUENCES: 43
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
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FILING DATE: 06-Jun-1995
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FILING DATE: 11-APR-1995
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FILING DATE: 06-JAN-1995
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FILING DATE: 12-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Kubinec, Jeffrey S.
REGISTRATION NUMBER: 36,575
REFERENCE/DOCKET NUMBER: P0844P2C1
TELECOMMUNICATION INFORMATION:

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; TELEPHONE: 415/225-8228
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US-08-470-846A-3

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; GENERAL INFORMATION:
; APPLICANT: MISCHAK, RONALD P.
; APPLICANT: LIM, GARRETT A.
; APPLICANT: SCARDINA, JAN M.
; TITLE OF INVENTION: ASSAY AND REAGENTS FOR QUANTIFYING HBNP
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MORRISON & FOERSTER
; STREET: 755 PAGE MILL ROAD
; CITY: PALO ALTO
; STATE: CA
; COUNTRY: USA
; ZIP: 94304-1018
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/942,332B
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/610,172
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Lehnhardt, Susan K.
; REGISTRATION NUMBER: 33,943
; REFERENCE/DOCKET NUMBER: 21900-20280.00
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 813-5600
; TELEFAX: (415) 494-0792
; TELEX: 706141 MRSNFOERS SFO
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 32 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-942-332B

Query Match 100.0%; Score 92; DB 2; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 10
US-08-942-456-1
; Sequence 1, Application US/08942456
; Patent No. 6162902
; GENERAL INFORMATION:
; APPLICANT: MISCHAK, RONALD P.
; APPLICANT: LIM, GARRETT A.
; APPLICANT: SCARDINA, JAN M.
; TITLE OF INVENTION: ASSAY AND REAGENTS FOR QUANTIFYING HBNP
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MORRISON & FOERSTER
; STREET: 755 PAGE MILL ROAD
; CITY: PALO ALTO
; STATE: CA
; COUNTRY: USA
; ZIP: 94304-1018
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/942,456
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/610,172
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Lehnhardt, Susan K.
; REGISTRATION NUMBER: 33,943
; REFERENCE/DOCKET NUMBER: 21900-20280.00
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 813-5600
; TELEFAX: (415) 494-0792
; TELEX: 706141 MRSNFOERS SFO
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 32 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-942-456-1

Query Match 100.0%; Score 92; DB 2; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 11
US-09-510-721-1
; Sequence 1, Application US/09510721
; Patent No. 6376207
; GENERAL INFORMATION:
; APPLICANT: MISCHAK, RONALD P.
; APPLICANT: LIM, GARRETT A.
; APPLICANT: SCARDINA, JAN M.
; TITLE OF INVENTION: ASSAY AND REAGENTS FOR QUANTIFYING HBNP
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MORRISON & FOERSTER
; STREET: 755 PAGE MILL ROAD
; CITY: PALO ALTO
; STATE: CA
; COUNTRY: USA
; ZIP: 94304-1018
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
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; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
;   APPLICATION NUMBER: US/09/510,721
;   FILING DATE: 23-Feb-2000
;   CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
;   APPLICATION NUMBER: US 08/610,172
;   FILING DATE: 04-MAR-1996
; ATTORNEY/AGENT INFORMATION:
;   NAME: Lehnhardt, Susan K.
;   REGISTRATION NUMBER: 33,943
;   REFERENCE/DOCKET NUMBER: 21900-20280.00
; TELECOMMUNICATION INFORMATION:
;   TELEPHONE: (415) 813-5600
;   TELEFAX: (415) 494-0792
;   TELEX: 706141 MRSNFOERS SFO
; INFORMATION FOR SEQ ID NO: 1:
;   SEQUENCE CHARACTERISTICS:
;     LENGTH: 32 amino acids
;     TYPE: amino acid
;     STRANDEDNESS: single
;     TOPOLOGY: linear
;   SEQUENCE DESCRIPTION: SEQ ID NO: 1:
US-09-510-721-1

```

```

Query Match      100.0%; Score 92; DB 2; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY      1  CFGRKMDRISSSSGLGC 17
        |||||
DB      10  CFGRKMDRISSSSGLGC 26

```

```

RESULT 12
US-09-466-268B-6
; Sequence 6, Application US/09466268B
; Patent No. 6407211
; GENERAL INFORMATION:
; APPLICANT: Burnett, Jr., John C.
; APPLICANT: Lisy, Ondrej
; TITLE OF INVENTION: Chimeric natriuretic peptides
; FILE REFERENCE: 150.199US1
; CURRENT APPLICATION NUMBER: US/09/466,268B
; CURRENT FILING DATE: 1999-12-17
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: Fast-Seq for Windows Version 4.0
; SEQ ID NO 6
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-466-268B-6

```

```

Query Match      100.0%; Score 92; DB 2; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

QY      1  CFGRKMDRISSSSGLGC 17
        |||||
DB      10  CFGRKMDRISSSSGLGC 26

```

```

RESULT 13
US-09-154-390-3
; Sequence 3, Application US/09154390
; Patent No. 6525022
; GENERAL INFORMATION:
; APPLICANT: Lowe, David G.
; APPLICANT: Cunningham, Brian C.
; APPLICANT: Oare, David
; APPLICANT: McDowell, Robert S.

```

```

; APPLICANT: Burnier, John P.
; TITLE OF INVENTION: RECEPTOR SPECIFIC ATRIAL NATRIURETIC PEPTIDES
; FILE REFERENCE: 13734.1USWS
; CURRENT APPLICATION NUMBER: US/09/154,390
; CURRENT FILING DATE: 1998-09-16
; PRIOR APPLICATION NUMBER: US 08/470,846
; PRIOR FILING DATE: 1995-06-06
; PRIOR APPLICATION NUMBER: US 08/419,877
; PRIOR FILING DATE: 1995-04-11
; PRIOR APPLICATION NUMBER: US 08/362,552
; PRIOR FILING DATE: 1995-01-06
; PRIOR APPLICATION NUMBER: PCT/US94/12591
; PRIOR FILING DATE: 1994-11-04
; PRIOR APPLICATION NUMBER: US 08/152,994
; PRIOR FILING DATE: 1993-11-12
; NUMBER OF SEQ ID NOS: 50
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic
US-09-154-390-3

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```

Query Match      100.0%; Score 92; DB 2; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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```

QY      1  CFGRKMDRISSSSGLGC 17
        |||||
DB      10  CFGRKMDRISSSSGLGC 26

```

```

RESULT 14
US-09-154-390-22
; Sequence 22, Application US/09154390
; Patent No. 6525022
; GENERAL INFORMATION:
; APPLICANT: Lowe, David G.
; APPLICANT: Cunningham, Brian C.
; APPLICANT: Oare, David
; APPLICANT: McDowell, Robert S.
; APPLICANT: Burnier, John P.
; TITLE OF INVENTION: RECEPTOR SPECIFIC ATRIAL NATRIURETIC PEPTIDES
; FILE REFERENCE: 13734.1USWS
; CURRENT APPLICATION NUMBER: US/09/154,390
; CURRENT FILING DATE: 1998-09-16
; PRIOR APPLICATION NUMBER: US 08/470,846
; PRIOR FILING DATE: 1995-06-06
; PRIOR APPLICATION NUMBER: US 08/419,877
; PRIOR FILING DATE: 1995-04-11
; PRIOR APPLICATION NUMBER: US 08/362,552
; PRIOR FILING DATE: 1995-01-06
; PRIOR APPLICATION NUMBER: PCT/US94/12591
; PRIOR FILING DATE: 1994-11-04
; PRIOR APPLICATION NUMBER: US 08/152,994
; PRIOR FILING DATE: 1993-11-12
; NUMBER OF SEQ ID NOS: 50
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 22
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic
US-09-154-390-22

```

```

Query Match      100.0%; Score 92; DB 2; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

QY      1  CFGRKMDRISSSSGLGC 17

```

Db 10 CFGRKMDRISSSSGLGC 26
|||||

RESULT 15
US-10-106-806-6
; Sequence 6, Application US/10106806
; Patent No. 6818619
; GENERAL INFORMATION:
; APPLICANT: Burnett, Jr., John C.
; APPLICANT: Lisy, Ondrej
; TITLE OF INVENTION: Chimeric natriuretic peptides
; FILE REFERENCE: 150.199US2
; CURRENT APPLICATION NUMBER: US/10/106,806
; CURRENT FILING DATE: 2002-03-26
; PRIOR APPLICATION NUMBER: US 09/466,268
; PRIOR FILING DATE: 1999-12-17
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 6
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-106-806-6

Query Match 100.0%; Score 92; DB 2; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
|||||

Db 10 CFGRKMDRISSSSGLGC 26
|||||

RESULT 16
US-09-623-548A-509
; Sequence 509, Application US/09623548A
; Patent No. 6849714
; GENERAL INFORMATION:
; APPLICANT: Conjugchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thiabaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/623,548A
; CURRENT FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 509
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-623-548A-509

Query Match 100.0%; Score 92; DB 2; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
|||||

Db 10 CFGRKMDRISSSSGLGC 26
|||||

RESULT 17
US-09-623-548A-516
; Sequence 516, Application US/09623548A
; Patent No. 6849714
; GENERAL INFORMATION:
; APPLICANT: Conjugchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thiabaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/623,548A
; CURRENT FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 516
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-623-548A-516

Query Match 100.0%; Score 92; DB 2; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
|||||

Db 10 CFGRKMDRISSSSGLGC 26
|||||

RESULT 18
US-09-657-276-509
; Sequence 509, Application US/09657276
; Patent No. 6887470
; GENERAL INFORMATION:
; APPLICANT: Conjugchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thiabaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/657,276
; CURRENT FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 509

```
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-657-276-509

Query Match          100.0%; Score 92; DB 2; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  CFGRKMDRISSSSGLGC 17
Db      10  CFGRKMDRISSSSGLGC 26

RESULT 19
US-09-657-276-516
; Sequence 516, Application US/09657276
; Patent No. 6887470
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudreau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/657,276
; CURRENT FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 516
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-657-276-516

Query Match          100.0%; Score 92; DB 2; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  CFGRKMDRISSSSGLGC 17
Db      10  CFGRKMDRISSSSGLGC 26

RESULT 20
US-09-902-517-49
; Sequence 49, Application US/09902517
; Patent No. 6897030
; GENERAL INFORMATION:
; APPLICANT: Seilhamer, Jeffrey J.
; APPLICANT: Lewicki, John
; APPLICANT: Scarborough, Robert M.
; APPLICANT: Porter, Gordon J.
; TITLE OF INVENTION: IMMUNOASSAYS FOR HUMAN AND CANINE BRAIN
; TITLE OF INVENTION: NATRIURETIC PEPTIDE
; FILE REFERENCE: 21902025213
; CURRENT APPLICATION NUMBER: US/09/902,517
```

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; CURRENT FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/287,892
; PRIOR FILING DATE: 1999-04-07
; PRIOR APPLICATION NUMBER: 08/850,910
; PRIOR FILING DATE: 1997-05-05
; PRIOR APPLICATION NUMBER: 07/477,226
; PRIOR FILING DATE: 1990-02-08
; PRIOR APPLICATION NUMBER: 07/299,880
; PRIOR FILING DATE: 1989-01-19
; PRIOR APPLICATION NUMBER: 07/206,470
; PRIOR FILING DATE: 1988-06-14
; PRIOR APPLICATION NUMBER: 07/200,383
; PRIOR FILING DATE: 1988-05-31
; NUMBER OF SEQ ID NOS: 50
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 49
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: R2
US-09-902-517-49

Query Match          100.0%; Score 92; DB 2; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  CFGRKMDRISSSSGLGC 17
Db      10  CFGRKMDRISSSSGLGC 26

RESULT 21
PCT-US94-02391-2
; Sequence 2, Application PC/TUS9402391
; GENERAL INFORMATION:
; APPLICANT: Mayo Foundation for Medical Education and Research
; APPLICANT: 200 First Street S.W. 55905 USA
; APPLICANT: Rochester, Minnesota
; TITLE OF INVENTION: Vasonatrin Peptide and Analogs Thereof
; NUMBER OF SEQUENCES: 17
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Schwegman, Lundberg & Woessner
; STREET: 3500 IDS Center
; CITY: Minneapolis
; STATE: MN
; COUNTRY: USA
; ZIP: 55402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US94/02391
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/025,935
; FILING DATE: 03-MAR-1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Woessner, Warren D.
; REGISTRATION NUMBER: 30,440
; REFERENCE/DOCKET NUMBER: 150.99US01
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 612-339-0331
; TELEFAX: 612-339-3061
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 32 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
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MOLECULE TYPE: peptide
PCT-US94-02391-2

Query Match 100.0%; Score 92; DB 4; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISSSSGLGC 17
Db 10 CFCGRKMDRISSSSGLGC 26

RESULT 22

PCT-US94-12591-3
Sequence 3, Application PC/TUS9412591

GENERAL INFORMATION:
APPLICANT: Genentech, Inc.
APPLICANT: Lowe, David
APPLICANT: Cunningham, Brian C.
APPLICANT: Oare, David
APPLICANT: McDowell, Robert S.
APPLICANT: Burnier, John
TITLE OF INVENTION: RECEPTOR SPECIFIC ATRIAL NATRIURETIC
TITLE OF INVENTION: PEPTIDES
NUMBER OF SEQUENCES: 47

CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIP: 94080

COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/12591
FILING DATE:

CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/152994
FILING DATE: 12-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Winter, Daryl B.
REGISTRATION NUMBER: 32,637
REFERENCE/DOCKET NUMBER: 844P1
TELEPHONE: 415/225-1249
TELEFAX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 32 amino acids
TYPE: amino acid
TOPOLOGY: linear
PCT-US94-12591-3

Query Match 100.0%; Score 92; DB 4; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISSSSGLGC 17
Db 10 CFCGRKMDRISSSSGLGC 26

RESULT 23

PCT-US94-12591-22
Sequence 22, Application PC/TUS9412591

GENERAL INFORMATION:
APPLICANT: Genentech, Inc.

APPLICANT: Lowe, David
APPLICANT: Cunningham, Brian C.
APPLICANT: Oare, David
APPLICANT: McDowell, Robert S.
APPLICANT: Burnier, John
TITLE OF INVENTION: RECEPTOR SPECIFIC ATRIAL NATRIURETIC
TITLE OF INVENTION: PEPTIDES
NUMBER OF SEQUENCES: 47
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIP: 94080

COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/12591
FILING DATE:

CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/152994
FILING DATE: 12-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Winter, Daryl B.
REGISTRATION NUMBER: 32,637
REFERENCE/DOCKET NUMBER: 844P1
TELEPHONE: 415/225-1249
TELEFAX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 22:
SEQUENCE CHARACTERISTICS:
LENGTH: 32 amino acids
TYPE: amino acid
TOPOLOGY: linear
PCT-US94-12591-22

Query Match 100.0%; Score 92; DB 4; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISSSSGLGC 17
Db 10 CFCGRKMDRISSSSGLGC 26

RESULT 24

US-09-942-709-1

Sequence 1, Application US/09942709
Patent No. 6677124
GENERAL INFORMATION:
APPLICANT: TSUJI, Tetsuo
APPLICANT: INOUE, Ken
APPLICANT: YAMAUCHI, Akira
APPLICANT: KONO, Masao
APPLICANT: IGANO, Ken'ichi
TITLE OF INVENTION: Monoclonal Antibody Recognizing C-terminus of hBNP
FILE REFERENCE: 0039-0262P
CURRENT APPLICATION NUMBER: US/09/942,709
CURRENT FILING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: JP 3-326961
PRIOR FILING DATE: 1991-11-14
PRIOR APPLICATION NUMBER: US 07/976,457
PRIOR FILING DATE: 1992-11-13
PRIOR APPLICATION NUMBER: US 08/236,013
PRIOR FILING DATE: 1994-05-02
PRIOR APPLICATION NUMBER: US 08/749,031
PRIOR FILING DATE: 1996-11-14

```

; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: synthetic amino acid according to the usual solid phase method
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (1)..(1)
; OTHER INFORMATION: N-terminal BOC modified side chain Br-Z modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (2)..(2)
; OTHER INFORMATION: side chain Bzl modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (4)..(4)
; OTHER INFORMATION: side chain Cl-Z modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (9)..(9)
; OTHER INFORMATION: side chain Bzl modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (11)..(11)
; OTHER INFORMATION: side chain 4-CH3OBzl modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (14)..(14)
; OTHER INFORMATION: side chain TOS modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (15)..(15)
; OTHER INFORMATION: side chain Cl-Z modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (17)..(17)
; OTHER INFORMATION: side chain OCHex modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (20)..(20)
; OTHER INFORMATION: side chain Bzl modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (21)..(21)
; OTHER INFORMATION: side chain Bzl modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (22)..(22)
; OTHER INFORMATION: side chain Bzl modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (23)..(23)
; OTHER INFORMATION: side chain Bzl modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (27)..(27)
; OTHER INFORMATION: side chain 4-CH3OBzl modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (28)..(28)
; OTHER INFORMATION: side chain Cl-Z modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (31)..(31)
; OTHER INFORMATION: side chain TOS modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (32)..(32)
; OTHER INFORMATION: side chain TOS modified
; FEATURE:

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; NAME/KEY: SITE
; LOCATION: (33)..(33)
; OTHER INFORMATION: side chain Bom modified
US-09-942-709-1

Query Match      100.0%; Score 92; DB 2; Length 33;
Best Local Similarity 100.0%; Pred. No. 4.7e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 11 CFGRKMDRISSSSGLGC 27

RESULT 25
US-09-466-268B-1
; Sequence 1, Application US/09466268B
; Patent No. 6407211
; GENERAL INFORMATION:
; APPLICANT: Burnett, Jr., John C.
; APPLICANT: Lisy, Ondrej
; TITLE OF INVENTION: Chimeric natriuretic peptides
; FILE REFERENCE: 150.199US1
; CURRENT APPLICATION NUMBER: US/09/466,268B
; CURRENT FILING DATE: 1999-12-17
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 41
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: A chimeric peptide
US-09-466-268B-1

Query Match      100.0%; Score 92; DB 2; Length 41;
Best Local Similarity 100.0%; Pred. No. 6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 26
US-10-106-806-1
; Sequence 1, Application US/10106806
; Patent No. 6818619
; GENERAL INFORMATION:
; APPLICANT: Burnett, Jr., John C.
; APPLICANT: Lisy, Ondrej
; TITLE OF INVENTION: Chimeric natriuretic peptides
; FILE REFERENCE: 150.199US2
; CURRENT APPLICATION NUMBER: US/10/106,806
; CURRENT FILING DATE: 2002-03-26
; PRIOR APPLICATION NUMBER: US 09/466,268
; PRIOR FILING DATE: 1999-12-17
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 41
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: A chimeric peptide
US-10-106-806-1

Query Match      100.0%; Score 92; DB 2; Length 41;
Best Local Similarity 100.0%; Pred. No. 6e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17

```

Db 10 CFGRKMDRISSSSGLGC 26

RESULT 27

US-08-850-910A-45
; Sequence 45, Application US/08850910A
; Patent No. 5948761
; GENERAL INFORMATION:
; APPLICANT: SEILHAMER, J.J.
; APPLICANT: LEWICKI, J.
; TITLE OF INVENTION: RECOMBINANT TECHNIQUES FOR
; TITLE OF INVENTION: PRODUCTION OF BRAIN NATRIURETIC PEPTIDE
; NUMBER OF SEQUENCES: 50
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MORRISON & FOERSTER, LLP
; STREET: 2000 Pennsylvania Avenue, NW, Suite 5500
; CITY: Washington
; STATE: DC
; COUNTRY: USA
; ZIP: 20006-1888
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: Windows
; SOFTWARE: FastSeq for Windows Version 2.0b
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/850,910A
; FILING DATE: 05-MAY-1997
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/477,226
; FILING DATE: 08-FEB-1990
; APPLICATION NUMBER: 07/299,880
; FILING DATE: 19-JAN-1989
; APPLICATION NUMBER: 07/206,470
; FILING DATE: 14-JUN-1988
; APPLICATION NUMBER: 07/200,383
; FILING DATE: 31-MAY-1988
; ATTORNEY/AGENT INFORMATION:
; NAME: Murashige, Kate H
; REGISTRATION NUMBER: 29,959
; REFERENCE/DOCKET NUMBER: 219002025212
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-887-1500
; TELEFAX: 202-822-0168
; TELEX:
; INFORMATION FOR SEQ ID NO: 45:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 134 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FRAGMENT TYPE: internal
US-08-850-910A-45

Query Match 100.0%; Score 92; DB 1; Length 134;
Best Local Similarity 100.0%; Pred. No. 2.2e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 112 CFGRKMDRISSSSGLGC 128

RESULT 28

US-08-850-910A-48
; Sequence 48, Application US/08850910A
; Patent No. 5948761
; GENERAL INFORMATION:
; APPLICANT: SEILHAMER, J.J.
; APPLICANT: LEWICKI, J.

; APPLICANT: SCARBOROUGH, R.M.
; TITLE OF INVENTION: RECOMBINANT TECHNIQUES FOR
; TITLE OF INVENTION: PRODUCTION OF BRAIN NATRIURETIC PEPTIDE
; NUMBER OF SEQUENCES: 50
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MORRISON & FOERSTER, LLP
; STREET: 2000 Pennsylvania Avenue, NW, Suite 5500
; CITY: Washington
; STATE: DC
; COUNTRY: USA
; ZIP: 20006-1888
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: Windows
; SOFTWARE: FastSeq for Windows Version 2.0b
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/850,910A
; FILING DATE: 05-MAY-1997
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/477,226
; FILING DATE: 08-FEB-1990
; APPLICATION NUMBER: 07/299,880
; FILING DATE: 19-JAN-1989
; APPLICATION NUMBER: 07/206,470
; FILING DATE: 14-JUN-1988
; APPLICATION NUMBER: 07/200,383
; FILING DATE: 31-MAY-1988
; ATTORNEY/AGENT INFORMATION:
; NAME: Murashige, Kate H
; REGISTRATION NUMBER: 29,959
; REFERENCE/DOCKET NUMBER: 219002025212
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-887-1500
; TELEFAX: 202-822-0168
; TELEX:
; INFORMATION FOR SEQ ID NO: 48:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 134 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-850-910A-48

Query Match 100.0%; Score 92; DB 1; Length 134;
Best Local Similarity 100.0%; Pred. No. 2.2e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 112 CFGRKMDRISSSSGLGC 128

RESULT 29

US-09-508-435A-2
; Sequence 2, Application US/09508435A
; Patent No. 6828107
; GENERAL INFORMATION:
; APPLICANT: Shionogi & Co., Ltd.
; TITLE OF INVENTION: Immunoassay for BNP
; FILE REFERENCE: 2000-0259A/JJF/WMC/00177
; CURRENT APPLICATION NUMBER: US/09/508,435A
; CURRENT FILING DATE: 2000-03-13
; PRIOR APPLICATION NUMBER: JP 246684/1997
; PRIOR FILING DATE: 1997-09-11
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: Word (MS-DOS text)
; SEQ ID NO 2
; LENGTH: 134
; TYPE: PRT
; ORGANISM: human

US-09-508-435A-2

Query Match 100.0%; Score 92; DB 2; Length 134;
Best Local Similarity 100.0%; Pred. No. 2.2e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | | | | | | |
Db 112 CFGRKMDRISSSSGLGC 128

RESULT 30

US-09-502-517-45
; Sequence 45, Application US/09902517
; Patent No. 6897030
; GENERAL INFORMATION:
; APPLICANT: Seilhamer, Jeffrey J.
; APPLICANT: Lewicki, John
; APPLICANT: Scarborough, Robert M.
; APPLICANT: Porter, Gordon J.
; TITLE OF INVENTION: IMMUNOASSAYS FOR HUMAN AND CANINE BRAIN
; TITLE OF INVENTION: NATRIURETIC PEPTIDE
; FILE REFERENCE: 219002025213
; CURRENT APPLICATION NUMBER: US/09/902,517
; CURRENT FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/287,892
; PRIOR FILING DATE: 1999-04-07
; PRIOR APPLICATION NUMBER: 08/850,910
; PRIOR FILING DATE: 1997-05-05
; PRIOR APPLICATION NUMBER: 07/477,226
; PRIOR FILING DATE: 1990-02-08
; PRIOR APPLICATION NUMBER: 07/299,880
; PRIOR FILING DATE: 1989-01-19
; PRIOR APPLICATION NUMBER: 07/206,470
; PRIOR FILING DATE: 1988-06-14
; PRIOR APPLICATION NUMBER: 07/200,383
; PRIOR FILING DATE: 1988-05-31
; NUMBER OF SEQ ID NOS: 50
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 45
; LENGTH: 134
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Deduced amino acid sequence of the human NRP

US-09-902-517-45
Query Match 100.0%; Score 92; DB 2; Length 134;
Best Local Similarity 100.0%; Pred. No. 2.2e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | | | | | | |
Db 112 CFGRKMDRISSSSGLGC 128

RESULT 31

US-09-902-517-48
; Sequence 48, Application US/09902517
; Patent No. 6897030
; GENERAL INFORMATION:
; APPLICANT: Seilhamer, Jeffrey J.
; APPLICANT: Lewicki, John
; APPLICANT: Scarborough, Robert M.
; APPLICANT: Porter, Gordon J.
; TITLE OF INVENTION: IMMUNOASSAYS FOR HUMAN AND CANINE BRAIN
; TITLE OF INVENTION: NATRIURETIC PEPTIDE
; FILE REFERENCE: 219002025213
; CURRENT APPLICATION NUMBER: US/09/902,517
; CURRENT FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/287,892
; PRIOR FILING DATE: 1999-04-07
; PRIOR APPLICATION NUMBER: 08/850,910

; PRIOR FILING DATE: 1997-05-05
; PRIOR APPLICATION NUMBER: 07/477,226
; PRIOR FILING DATE: 1990-02-08
; PRIOR APPLICATION NUMBER: 07/299,880
; PRIOR FILING DATE: 1989-01-19
; PRIOR APPLICATION NUMBER: 07/206,470
; PRIOR FILING DATE: 1988-06-14
; PRIOR APPLICATION NUMBER: 07/200,383
; PRIOR FILING DATE: 1988-05-31
; NUMBER OF SEQ ID NOS: 50
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 48
; LENGTH: 134
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Comparison sequence of the prepro forms of the
; OTHER INFORMATION: human proteins of the invention
US-09-902-517-48

Query Match 100.0%; Score 92; DB 2; Length 134;
Best Local Similarity 100.0%; Pred. No. 2.2e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | | | | | | |
Db 112 CFGRKMDRISSSSGLGC 128

RESULT 32

US-09-623-548A-515
; Sequence 515, Application US/09623548A
; Patent No. 6849714
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/623,548A
; CURRENT FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 515
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-623-548A-515

Query Match 97.8%; Score 90; DB 2; Length 33;
Best Local Similarity 94.1%; Pred. No. 1.1e-08;
Matches 16; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | | | | | | |
Db 11 CFGRKMDRISSSSGLGC 27

RESULT 33


```

; REFERENCE/DOCKET NUMBER: P1017R1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 650/225-8228
; TELEFAX: 650/952-9881
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 32 amino acids
; TYPE: Amino Acid
; TOPOLOGY: Linear
US-08-954-915A-1

Query Match 95.7%; Score 88; DB 2; Length 32;
Best Local Similarity 94.4%; Pred. No. 2.3e-08;
Matches 16; Conservative 1; Mismatches 0; Indels

Qy 1 CFGRKMDRISSSSGLGC 17
    |||||:|||||||
Db 10 CFGRKMERISSSGLGC 26

RESULT 35
US-09-466-268B-7
; Sequence 7, Application US/09466268B
; Patent No. 6407211
; GENERAL INFORMATION:
; APPLICANT: Burnett, Jr., John C.
; APPLICANT: Lisy, Ondrej
; TITLE OF INVENTION: Chimeric natriuretic peptides
; FILE REFERENCE: 150.199US1
; CURRENT APPLICATION NUMBER: US/09/466,268B
; CURRENT FILING DATE: 1999-12-17
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 7
; LENGTH: 25
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-466-268B-7

Query Match 90.2%; Score 83; DB 2; Length 25;
Best Local Similarity 100.0%; Pred. No. 1.3e-07;
Matches 16; Conservative 0; Mismatches 0; Indels

Qy 1 CFGRKMDRISSSSGLG 16
    |||||:|||||||
Db 10 CFGRKMDRISSSSGLG 25

RESULT 36
US-08-954-915A-4
; Sequence 4, Application US/08954915A
; Patent No. 6028055
; GENERAL INFORMATION:
; APPLICANT: Lowe, David
; APPLICANT: Schoenfeld, Jill
; TITLE OF INVENTION: Receptor Selective BNP
; NUMBER OF SEQUENCES: 52
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Genentech, Inc.
; STREET: 1 DNA Way
; CITY: South San Francisco
; STATE: California
; COUNTRY: USA
; ZIP: 94080
; COMPUTER READABLE FORM:
; MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: WinPatIn (Genentech)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/954,915A
; FILING DATE: 21-Oct-1997
; CLASSIFICATION: 514

```

;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 60/028854
;; FILING DATE: 22-Oct-1996
;; ATTORNEY/AGENT INFORMATION:
;; NAME: Kubinec, Jeffrey S.
;; REGISTRATION NUMBER: 36,575
;; REFERENCE/DOCKET NUMBER: P1017R1
;; TELEPHONE: 650/225-8228
;; TELEFAX: 650/952-9881
;; INFORMATION FOR SEQ ID NO: 4:
;; SEQUENCE CHARACTERISTICS:
;; LENGTH: 32 amino acids
;; TYPE: Amino Acid
;; TOPOLOGY: Linear
US-08-954-915A-4

Query Match 90.2%; Score 83; DB 2; Length 32;
Best Local Similarity 88.2%; Pred. No. 1.7e-07;
Matches 15; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSGLGC 17
DB 10 CFGRKMERIRSSGLGC 26

RESULT 37
US-08-954-915A-48
; Sequence 48, Application US/08954915A
; Patent No. 6028055
; GENERAL INFORMATION:
; APPLICANT: Lowe, David
; APPLICANT: Schoenfeld, Jill
; TITLE OF INVENTION: Receptor Selective BNP
; NUMBER OF SEQUENCES: 52
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Genentech, Inc.
; STREET: 1 DNA Way
; CITY: South San Francisco
; STATE: California
; COUNTRY: USA
; ZIP: 94080
; COMPUTER READABLE FORM:
; MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: WinPatIn (Genentech)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/954,915A
; FILING DATE: 21-Oct-1997
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 60/028854
; FILING DATE: 22-Oct-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Kubinec, Jeffrey S.
; REGISTRATION NUMBER: 36,575
; REFERENCE/DOCKET NUMBER: P1017R1
; TELEPHONE: 650/225-8228
; TELEFAX: 650/952-9881
; INFORMATION FOR SEQ ID NO: 48:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 32 amino acids
; TYPE: Amino Acid
; TOPOLOGY: Linear
US-08-954-915A-48

Query Match 89.1%; Score 82; DB 2; Length 32;
Best Local Similarity 88.2%; Pred. No. 2.5e-07;
Matches 15; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSGLGC 17

DB 10 CFGRKMDRISSSGLGC 26

RESULT 38
US-10-360-101-86
; Sequence 86, Application US/10360101
; Patent No. 6861236
; GENERAL INFORMATION:
; APPLICANT: Moll, Gert N.
; APPLICANT: Leenhouts, Cornelis J.
; TITLE OF INVENTION: Export and modification of (poly)peptide in the lantibiotic way
; FILE REFERENCE: 2183-5673
; CURRENT APPLICATION NUMBER: US/10/360,101
; CURRENT FILING DATE: 2003-02-07
; PRIOR APPLICATION NUMBER: EP 02077060.8
; PRIOR FILING DATE: 2002-05-24
; NUMBER OF SEQ ID NOS: 309
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 86
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: S16,C19-sequence of Brain Natriuretic peptide
US-10-360-101-86

Query Match 88.0%; Score 81; DB 2; Length 32;
Best Local Similarity 88.2%; Pred. No. 3.8e-07;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSGLGC 17
DB 10 CFGRKMSRICSSGLGC 26

RESULT 39
US-08-954-915A-5
; Sequence 5, Application US/08954915A
; Patent No. 6028055
; GENERAL INFORMATION:
; APPLICANT: Lowe, David
; APPLICANT: Schoenfeld, Jill
; TITLE OF INVENTION: Receptor Selective BNP
; NUMBER OF SEQUENCES: 52
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Genentech, Inc.
; STREET: 1 DNA Way
; CITY: South San Francisco
; STATE: California
; COUNTRY: USA
; ZIP: 94080
; COMPUTER READABLE FORM:
; MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: WinPatIn (Genentech)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/954,915A
; FILING DATE: 21-Oct-1997
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 60/028854
; FILING DATE: 22-Oct-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Kubinec, Jeffrey S.
; REGISTRATION NUMBER: 36,575
; REFERENCE/DOCKET NUMBER: P1017R1
; TELEPHONE: 650/225-8228
; TELEFAX: 650/952-9881
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:

```
;
; LENGTH: 32 amino acids
; TYPE: Amino Acid
; TOPOLOGY: Linear
US-08-954-915A-5

Query Match      84.8%; Score 78; DB 2; Length 32;
Best Local Similarity 82.4%; Pred. No. 1.2e-06;
Matches 14; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFCGRKMDIRSSSSGLGC 17
Db 10 CFCGRKMDIRSSSSGLGC 26

RESULT 40
US-08-954-915A-24
; Sequence 24, Application US/08954915A
; Patent No. 6028055
; GENERAL INFORMATION:
; APPLICANT: Lowe, David
; APPLICANT: Schoenfeld, Jill
; TITLE OF INVENTION: Receptor Selective BNP
; NUMBER OF SEQUENCES: 52
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Genentech, Inc.
; STREET: 1 DNA Way
; CITY: South San Francisco
; STATE: California
; COUNTRY: USA
; ZIP: 94080
; COMPUTER READABLE FORM:
; MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: WinPatIn (Genentech)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/954,915A
; FILING DATE: 21-Oct-1997
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 60/028854
; FILING DATE: 22-Oct-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Kubinec, Jeffrey S.
; REGISTRATION NUMBER: 36,575
; REFERENCE/DOCKET NUMBER: P1017R1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 650/225-8228
; TELEFAX: 650/952-9881
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 32 amino acids
; TYPE: Amino Acid
; TOPOLOGY: Linear
US-08-954-915A-49

Query Match      83.7%; Score 77; DB 2; Length 32;
Best Local Similarity 82.4%; Pred. No. 1.9e-06;
Matches 14; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFCGRKMDIRSSSSGLGC 17
Db 10 CFCGRKMDIRSSSSGLGC 26

RESULT 42
US-08-850-910A-15
; Sequence 15, Application US/08850910A
; Patent No. 5948761
; GENERAL INFORMATION:
; APPLICANT: SEILHAWER, J.J.
; APPLICANT: LEWICKI, J.
; APPLICANT: SCARBOROUGH, R.M.
; TITLE OF INVENTION: RECOMBINANT TECHNIQUES FOR
; TITLE OF INVENTION: PRODUCTION OF BRAIN NATRIURETIC PEPTIDE
; NUMBER OF SEQUENCES: 50
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MORRISON & FOERSTER, LLP
; STREET: 2000 Pennsylvania Avenue, NW, Suite 5500
; CITY: Washington
; STATE: DC
; COUNTRY: USA
; ZIP: 20006-1888
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: Windows
; SOFTWARE: FastSeq for Windows Version 2.0b
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/850,910A
; FILING DATE: 05-MAY-1997
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/477,226
; FILING DATE: 08-FEB-1990
```

APPLICATION NUMBER: 07/299,880
 FILING DATE: 19-JAN-1989
 APPLICATION NUMBER: 07/206,470
 FILING DATE: 14-JUN-1988
 APPLICATION NUMBER: 07/200,383
 FILING DATE: 31-MAY-1988
 ATTORNEY/AGENT INFORMATION:
 NAME: Murashige, Kate H
 REGISTRATION NUMBER: 29,959
 REFERENCE/DOCKET NUMBER: 219002025212
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 202-887-1500
 TELEFAX: 202-822-0168
 TELEX:
 INFORMATION FOR SEQ ID NO: 15:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 17 amino acids
 TYPE: amino acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 MOLECULE TYPE: peptide
 US-08-850-910A-15

Query Match 82.6%; Score 76; DB 1; Length 17;
 Best Local Similarity 76.5%; Pred. NO. 1.4e-06;
 Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSGLGC 17
 DB 1 CFGRRLDRIGSLGGLC 17

RESULT 43
 US-09-902-517-15
 Sequence 15, Application US/09902517
 Patent No. 6897030
 GENERAL INFORMATION:
 APPLICANT: Seilhamer, Jeffrey J.
 APPLICANT: Lewicki, John
 APPLICANT: Scarborough, Robert M.
 APPLICANT: Porter, Gordon J.
 TITLE OF INVENTION: IMMUNOASSAYS FOR HUMAN AND CANINE BRAIN
 NATURE OF INVENTION: NATRIURETIC PEPTIDE
 FILE REFERENCE: 219002025213
 CURRENT APPLICATION NUMBER: US/09/902,517
 CURRENT FILING DATE: 2001-07-09
 PRIOR APPLICATION NUMBER: 09/287,892
 PRIOR FILING DATE: 1999-04-07
 PRIOR APPLICATION NUMBER: 08/850,910
 PRIOR FILING DATE: 1997-05-05
 PRIOR APPLICATION NUMBER: 07/477,226
 PRIOR FILING DATE: 1990-02-08
 PRIOR APPLICATION NUMBER: 07/299,880
 PRIOR FILING DATE: 1989-01-19
 PRIOR APPLICATION NUMBER: 07/206,470
 PRIOR FILING DATE: 1988-06-14
 PRIOR APPLICATION NUMBER: 07/200,383
 PRIOR FILING DATE: 1988-05-31
 NUMBER OF SEQ ID NOS: 50
 SOFTWARE: FastSeq for Windows Version 4.0
 SEQ ID NO 15
 LENGTH: 17
 TYPE: PRT
 ORGANISM: Unknown
 FEATURE:
 OTHER INFORMATION: Proviso formula (1)
 US-09-902-517-15

Query Match 82.6%; Score 76; DB 2; Length 17;
 Best Local Similarity 76.5%; Pred. NO. 1.4e-06;
 Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSGLGC 17

DB 1 CFGRRLDRIGSLGGLC 17

RESULT 44
 US-08-850-910A-34
 Sequence 34, Application US/08850910A
 Patent No. 5948761
 GENERAL INFORMATION:
 APPLICANT: SEILHAMER, J.J.
 APPLICANT: LEWICKI, J.
 APPLICANT: SCARBOROUGH, R.M.
 TITLE OF INVENTION: RECOMBINANT TECHNIQUES FOR
 PRODUCTION OF BRAIN NATRIURETIC PEPTIDE
 NUMBER OF SEQUENCES: 50
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: MORRISON & FOERSTER, LLP
 STREET: 2000 Pennsylvania Avenue, NW, Suite 5500
 CITY: Washington
 STATE: DC
 COUNTRY: USA
 ZIP: 20006-1888
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Diskette
 COMPUTER: IBM Compatible
 OPERATING SYSTEM: Windows
 SOFTWARE: FastSeq for Windows Version 2.0b
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/850,910A
 FILING DATE: 05-MAY-1997
 CLASSIFICATION: 435
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 07/477,226
 FILING DATE: 08-FEB-1990
 APPLICATION NUMBER: 07/299,880
 FILING DATE: 19-JAN-1989
 APPLICATION NUMBER: 07/206,470
 FILING DATE: 14-JUN-1988
 APPLICATION NUMBER: 07/200,383
 FILING DATE: 31-MAY-1988
 ATTORNEY/AGENT INFORMATION:
 NAME: Murashige, Kate H
 REGISTRATION NUMBER: 29,959
 REFERENCE/DOCKET NUMBER: 219002025212
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 202-887-1500
 TELEFAX: 202-822-0168
 TELEX:
 INFORMATION FOR SEQ ID NO: 34:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 20 amino acids
 TYPE: amino acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 MOLECULE TYPE: peptide
 US-08-850-910A-34

Query Match 82.6%; Score 76; DB 1; Length 20;
 Best Local Similarity 76.5%; Pred. NO. 1.7e-06;
 Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSGLGC 17
 DB 3 CFGRRLDRIGSLGGLC 19

RESULT 45
 US-09-902-517-34
 Sequence 34, Application US/09902517
 Patent No. 6897030
 GENERAL INFORMATION:
 APPLICANT: Seilhamer, Jeffrey J.
 APPLICANT: Lewicki, John

APPLICANT: Scarborough, Robert M.
APPLICANT: Porter, Gordon J.
TITLE OF INVENTION: IMMUNOASSAYS FOR HUMAN AND CANINE BRAIN
TITLE OF INVENTION: NATRIURETIC PEPTIDE
FILE REFERENCE: 219002025213
CURRENT APPLICATION NUMBER: US/09/902,517
CURRENT FILING DATE: 2001-07-09
PRIOR APPLICATION NUMBER: 09/287,892
PRIOR FILING DATE: 1999-04-07
PRIOR APPLICATION NUMBER: 08/850,910
PRIOR FILING DATE: 1997-05-05
PRIOR APPLICATION NUMBER: 07/477,226
PRIOR FILING DATE: 1990-02-08
PRIOR APPLICATION NUMBER: 07/299,880
PRIOR FILING DATE: 1989-01-19
PRIOR APPLICATION NUMBER: 07/206,470
PRIOR FILING DATE: 1988-06-14
PRIOR APPLICATION NUMBER: 07/200,383
PRIOR FILING DATE: 1988-05-31
NUMBER OF SEQ ID NOS: 50
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 34
LENGTH: 20
TYPE: PRT
ORGANISM: Unknown
FEATURE:
OTHER INFORMATION: Amino acids encoding pBNP
US-09-902-517-34

Query Match 82.6%; Score 76; DB 2; Length 20;
Best Local Similarity 76.5%; Pred. No. 1.7e-06;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||||:|||||
Db 3 CFGRRLDRIGLSGLGC 19

RESULT 46
US-07-828-450-10
Sequence 10, Application US/07828450
Patent No. 5434133
GENERAL INFORMATION:
APPLICANT: TANAKA, SHOJI
APPLICANT: MINAMITAKE, YOSHIHARU
APPLICANT: KITAJIMA, YASUO
APPLICANT: FURUYA, MAYUMI
APPLICANT: MATSUO, HISAYUKI
TITLE OF INVENTION: CNP ANALOG PEPTIDES AND THEIR USE
NUMBER OF SEQUENCES: 42
CORRESPONDENCE ADDRESS:
ADDRESSEE: CUSHMAN, DARBY & CUSHMAN
STREET: 1625 L STREET, N.W.
CITY: WASHINGTON
STATE: D.C.
COUNTRY: USA
ZIP: 20036
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/828,450
FILING DATE: 19920131
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: SCOTT, WATSON T.
REGISTRATION NUMBER: 26,581
REFERENCE/DOCKET NUMBER: 9437/94133
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-861-3067
TELEFAX: 202-822-0944

TELEX: 6714627 CUSH
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 22 amino acids
TYPE: AMINO ACID
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-07-828-450-10

Query Match 82.6%; Score 76; DB 1; Length 22;
Best Local Similarity 82.4%; Pred. No. 1.8e-06;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||||:|||||
Db 6 CFGLKMDRIGSMGLGC 22

RESULT 47
US-07-828-450-13
Sequence 13, Application US/07828450
Patent No. 5434133
GENERAL INFORMATION:
APPLICANT: TANAKA, SHOJI
APPLICANT: MINAMITAKE, YOSHIHARU
APPLICANT: KITAJIMA, YASUO
APPLICANT: FURUYA, MAYUMI
APPLICANT: MATSUO, HISAYUKI
TITLE OF INVENTION: CNP ANALOG PEPTIDES AND THEIR USE
NUMBER OF SEQUENCES: 42
CORRESPONDENCE ADDRESS:
ADDRESSEE: CUSHMAN, DARBY & CUSHMAN
STREET: 1625 L STREET, N.W.
CITY: WASHINGTON
STATE: D.C.
COUNTRY: USA
ZIP: 20036
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/828,450
FILING DATE: 19920131
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: SCOTT, WATSON T.
REGISTRATION NUMBER: 26,581
REFERENCE/DOCKET NUMBER: 9437/94133
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-861-3067
TELEFAX: 202-822-0944
TELEX: 6714627 CUSH
INFORMATION FOR SEQ ID NO: 13:
SEQUENCE CHARACTERISTICS:
LENGTH: 22 amino acids
TYPE: AMINO ACID
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-07-828-450-13

Query Match 82.6%; Score 76; DB 1; Length 22;
Best Local Similarity 82.4%; Pred. No. 1.8e-06;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||||:|||||
Db 6 CFGLKMDRIGSMGLGC 22

```

RESULT 48
US-07-778-847-2
; Sequence 2, Application US/07778847
; Patent No. 5352770
; GENERAL INFORMATION:
; APPLICANT: MATSUO, HISAYUKI
; TITLE OF INVENTION: PORCINE DERIVED NOVEL PHYSIOLOGICALLY
; TITLE OF INVENTION: ACTIVE PEPTIDE
; NUMBER OF SEQUENCES: 3
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: CUSHMAN, DARBY & CUSHMAN
; STREET: 1100 NEW YORK AVENUE, N.W.
; CITY: WASHINGTON
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/778,847
; FILING DATE: 19921220
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: SCOTT, WATSON T.
; REGISTRATION NUMBER: 26,581
; REFERENCE/DOCKET NUMBER: 9437/93819
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-861-3067
; TELEFAX: 202-822-0944
; TELEX: 6714627 CUSH
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 26 amino acids
; TYPE: AMINO ACID
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; US-07-778-847-2

Query Match 82.6%; Score 76; DB 1; Length 26;
Best Local Similarity 76.5%; Pred. No. 2.2e-06;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 CPGKMDRISSSGLGC 17
Db 4 CPGRLDRIGSLGLGC 20
||||:|||||
||||:|||||

RESULT 49
US-08-850-910A-3
; Sequence 3, Application US/08850910A
; Patent No. 5948761
; GENERAL INFORMATION:
; APPLICANT: SEILHAMER, J.J.
; APPLICANT: LEWICKI, J.
; APPLICANT: SCARBOROUGH, R.M.
; TITLE OF INVENTION: RECOMBINANT TECHNIQUES FOR
; TITLE OF INVENTION: PRODUCTION OF BRAIN NATRIUETIC PEPTIDE
; NUMBER OF SEQUENCES: 50
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MORRISON & FOERSTER, LLP
; STREET: 2000 Pennsylvania Avenue, NW, Suite 5500
; CITY: Washington
; STATE: DC
; COUNTRY: USA
; ZIP: 20006-1888
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: Windows

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; SOFTWARE: FastSeq for Windows Version 2.0b
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/850,910A
; FILING DATE: 05-MAY-1997
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/477,226
; FILING DATE: 08-FEB-1990
; APPLICATION NUMBER: 07/299,880
; FILING DATE: 19-JAN-1989
; APPLICATION NUMBER: 07/206,470
; FILING DATE: 14-JUN-1988
; APPLICATION NUMBER: 07/200,383
; FILING DATE: 31-MAY-1988
; ATTORNEY/AGENT INFORMATION:
; NAME: Murashige, Kate H
; REGISTRATION NUMBER: 29,959
; REFERENCE/DOCKET NUMBER: 219002025212
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-887-1500
; TELEFAX: 202-822-0168
; TELEX:
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 26 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; US-08-850-910A-3

Query Match 82.6%; Score 76; DB 1; Length 26;
Best Local Similarity 76.5%; Pred. No. 2.2e-06;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 CPGKMDRISSSGLGC 17
Db 4 CPGRLDRIGSLGLGC 20
||||:|||||
||||:|||||

RESULT 50
US-09-623-548A-511
; Sequence 511, Application US/09623548A
; Patent No. 6849714
; GENERAL INFORMATION:
; APPLICANT: Conjugchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/623,548A
; CURRENT FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 511
; LENGTH: 26
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; US-09-623-548A-511

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Query Match 82.6%; Score 76; DB 2; Length 26;
Best Local Similarity 76.5%; Pred. NO. 2.2e-06;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
QY 1 CFCGRKMDRISSSSGLGC 17
Db 4 CFCGRRLDRIGSLGLGC 20

Search completed: January 25, 2006, 18:48:37
Job time : 27 secs

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OM protein - protein search, using sw model

Run on: January 25, 2006, 18:42:01 ; Search time 82 Seconds
(without alignments)
91.091 Million cell updates/sec

Title: US-10-737-290-172
Perfect score: 92
Sequence: 1 CPGKXMDRISSSGLGC 17

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 1000 summaries

Database :

- A_Geneseq_21.*
- 1: Geneseqp1980s.*
- 2: Geneseqp1990s.*
- 3: Geneseqp2000s.*
- 4: Geneseqp2001s.*
- 5: Geneseqp2002s.*
- 6: Geneseqp2003as.*
- 7: Geneseqp2003bs.*
- 8: Geneseqp2004s.*
- 9: Geneseqp2005s.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query Match | Length | DB ID | Description |
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| 1 | 92 | 100.0 | 17 | ADL22372 | Natriuret |
| 2 | 92 | 100.0 | 17 | ADL22373 | Natriuret |
| 3 | 92 | 100.0 | 17 | AE812959 | Humaf bra |
| 4 | 92 | 100.0 | 18 | ADL22374 | Natriuret |
| 5 | 92 | 100.0 | 23 | ADL22365 | Natriuret |
| 6 | 92 | 100.0 | 23 | ADL22362 | Natriuret |
| 7 | 92 | 100.0 | 23 | ADL22364 | Natriuret |
| 8 | 92 | 100.0 | 23 | ADL22361 | Natriuret |
| 9 | 92 | 100.0 | 24 | AAB46799 | Humaf bra |
| 10 | 92 | 100.0 | 24 | ADL22366 | Natriuret |
| 11 | 92 | 100.0 | 24 | ADL22363 | Natriuret |
| 12 | 92 | 100.0 | 25 | ADL22352 | Natriuret |
| 13 | 92 | 100.0 | 26 | AAV67295 | Humaf bra |
| 14 | 92 | 100.0 | 26 | ABU63216 | N-tefminu |
| 15 | 92 | 100.0 | 26 | ADL22354 | Natriuret |
| 16 | 92 | 100.0 | 26 | ADP49303 | Natriuret |
| 17 | 92 | 100.0 | 26 | ADP49273 | Natriuret |
| 18 | 92 | 100.0 | 26 | ADW45317 | Human fus |
| 19 | 92 | 100.0 | 26 | ADP49289 | Human bra |
| 20 | 92 | 100.0 | 27 | ADW45318 | Human fus |
| 21 | 92 | 100.0 | 27 | ADW45318 | Human fus |
| 22 | 92 | 100.0 | 27 | ADW45367 | Human BNP |
| 23 | 92 | 100.0 | 28 | ADW45365 | Human BNP |
| 24 | 92 | 100.0 | 28 | ADW45319 | Human fus |

| | | | | | | | | | | | | | |
|-----|----|-------|-----|---|----------|-----------|-----|----|------|-----|---|-----------|------------|
| 98 | 92 | 100.0 | 118 | 6 | ABR96183 | Human NOV | 171 | 82 | 89.1 | 32 | 2 | AAW51305 | Human B-t |
| 99 | 92 | 100.0 | 121 | 8 | ADM57400 | Protein p | 172 | 82 | 89.1 | 32 | 3 | AAV80213 | Human B-t |
| 100 | 92 | 100.0 | 129 | 9 | AE663486 | HUMANATPP | 173 | 81 | 88.0 | 17 | 8 | ADP49292 | Natriuret |
| 101 | 92 | 100.0 | 134 | 2 | AAO6603 | Human Bra | 174 | 81 | 88.0 | 32 | 8 | ADL92006 | Brain nat |
| 102 | 92 | 100.0 | 134 | 2 | AAO4087 | Protein e | 175 | 78 | 84.8 | 17 | 5 | ABG98269 | Human C-t |
| 103 | 92 | 100.0 | 134 | 2 | AAO5325 | Human gam | 176 | 78 | 84.8 | 32 | 2 | AAW51262 | Human B-t |
| 104 | 92 | 100.0 | 134 | 4 | AA845735 | Human BNP | 177 | 78 | 84.8 | 32 | 2 | AAW51281 | Human B-t |
| 105 | 92 | 100.0 | 134 | 7 | ADG93293 | Human pre | 178 | 78 | 84.8 | 32 | 3 | AAV80251 | Human B-t |
| 106 | 92 | 100.0 | 134 | 7 | ADL16190 | Human alb | 179 | 78 | 84.8 | 32 | 3 | AAV80234 | Human B-t |
| 107 | 92 | 100.0 | 134 | 8 | ADM41413 | Human bra | 180 | 77 | 83.7 | 15 | 8 | ADJ79684 | Human Bra |
| 108 | 92 | 100.0 | 134 | 8 | ADQ30872 | Human pre | 181 | 77 | 83.7 | 21 | 2 | AAW25774 | Human B-t |
| 109 | 92 | 100.0 | 134 | 8 | ADR75283 | Human Bra | 182 | 77 | 83.7 | 32 | 3 | AAW51306 | Human B-t |
| 110 | 92 | 100.0 | 134 | 8 | ADS54317 | Human B-t | 183 | 77 | 83.7 | 32 | 3 | AAV80214 | Human B-t |
| 111 | 92 | 100.0 | 134 | 8 | ADU05012 | Amino aci | 184 | 76 | 82.6 | 22 | 2 | AAV80214 | Human B-t |
| 112 | 92 | 100.0 | 134 | 8 | ADU04661 | Human bra | 185 | 76 | 82.6 | 22 | 2 | AAV80214 | Human B-t |
| 113 | 92 | 100.0 | 134 | 8 | ADY34278 | Human bra | 186 | 76 | 82.6 | 26 | 2 | AAV80214 | Human B-t |
| 114 | 92 | 100.0 | 134 | 9 | ADZ22718 | Human pre | 187 | 76 | 82.6 | 26 | 2 | AAV80214 | Human B-t |
| 115 | 92 | 100.0 | 134 | 9 | AE63456 | HUMANATPP | 188 | 76 | 82.6 | 26 | 2 | AAV80214 | Human B-t |
| 116 | 92 | 100.0 | 143 | 9 | ADW08049 | Human bra | 189 | 76 | 82.6 | 32 | 2 | AAW70092 | Brain nat |
| 117 | 92 | 100.0 | 162 | 9 | ADW08048 | Human bra | 190 | 76 | 82.6 | 32 | 2 | AAW51301 | Canine B- |
| 118 | 92 | 100.0 | 162 | 9 | AE63457 | HUMANATPP | 191 | 76 | 82.6 | 32 | 2 | AAW51302 | Porcine B |
| 119 | 92 | 100.0 | 175 | 2 | AAV72812 | Gamma-IFN | 192 | 76 | 82.6 | 32 | 3 | AAV80221 | Canine B- |
| 120 | 92 | 100.0 | 197 | 8 | ADM57398 | Protein p | 193 | 76 | 82.6 | 32 | 3 | AAV80222 | Porcine B |
| 121 | 92 | 100.0 | 630 | 9 | ADW45230 | Human inv | 194 | 76 | 82.6 | 32 | 4 | AAV80222 | Porcine B |
| 122 | 92 | 100.0 | 631 | 9 | ADW45231 | Human inv | 195 | 76 | 82.6 | 32 | 4 | AAV80222 | Porcine B |
| 123 | 92 | 100.0 | 632 | 9 | ADW45232 | Human inv | 196 | 76 | 82.6 | 32 | 4 | AAV80222 | Porcine B |
| 124 | 92 | 100.0 | 633 | 9 | ADW45233 | Human alb | 197 | 76 | 82.6 | 32 | 4 | AAV80222 | Porcine B |
| 125 | 92 | 100.0 | 641 | 7 | ADL16537 | Human alb | 198 | 76 | 82.6 | 32 | 6 | ADW45233 | Human alb |
| 126 | 92 | 100.0 | 641 | 9 | ADW45226 | Human ser | 199 | 76 | 82.6 | 32 | 8 | ADP49281 | Natriuret |
| 127 | 92 | 100.0 | 641 | 9 | ADW45207 | Human ser | 200 | 76 | 82.6 | 32 | 8 | ADP49281 | Natriuret |
| 128 | 92 | 100.0 | 661 | 9 | ADW45277 | Human ser | 201 | 76 | 82.6 | 32 | 9 | ADV86893 | Beta BNP |
| 129 | 92 | 100.0 | 663 | 9 | ADW45280 | Human ser | 202 | 76 | 82.6 | 131 | 2 | AAV807342 | Porcine B |
| 130 | 92 | 100.0 | 665 | 9 | ADW45278 | Human ser | 203 | 76 | 82.6 | 131 | 2 | AAV807342 | Porcine B |
| 131 | 92 | 100.0 | 667 | 9 | ADW45223 | Human ser | 204 | 76 | 82.6 | 131 | 2 | AAV807342 | Porcine B |
| 132 | 92 | 100.0 | 670 | 9 | ADW45229 | Consensus | 205 | 76 | 82.6 | 131 | 7 | ADD93294 | Pig brain |
| 133 | 92 | 100.0 | 673 | 9 | ADW45197 | Human ser | 206 | 76 | 82.6 | 131 | 8 | ADW41432 | Pig brain |
| 134 | 92 | 100.0 | 673 | 9 | ADW45213 | Human ser | 207 | 76 | 82.6 | 140 | 6 | ADA09507 | Canine br |
| 135 | 92 | 100.0 | 673 | 9 | ADW45227 | Human ser | 208 | 76 | 82.6 | 140 | 8 | ADW41417 | Canine br |
| 136 | 92 | 100.0 | 719 | 9 | ADL16188 | Human alb | 209 | 76 | 82.6 | 169 | 9 | ADW08082 | Dog brain |
| 137 | 90 | 97.8 | 33 | 4 | AAV91339 | Brain nat | 210 | 75 | 81.5 | 17 | 5 | ABG98211 | Human C-t |
| 138 | 89 | 96.7 | 24 | 8 | ADP49298 | Natriuret | 211 | 75 | 81.5 | 28 | 6 | ADA00827 | Human hAN |
| 139 | 89 | 96.7 | 19 | 8 | ADP49306 | Natriuret | 212 | 74 | 80.4 | 17 | 5 | ABG98241 | Human C-t |
| 140 | 89 | 96.7 | 32 | 8 | ADL22378 | Natriuret | 213 | 74 | 80.4 | 17 | 5 | ABG98268 | Human C-t |
| 141 | 89 | 96.7 | 32 | 8 | ADL22379 | Natriuret | 214 | 74 | 80.4 | 17 | 5 | ABG98270 | Human C-t |
| 142 | 89 | 96.7 | 33 | 8 | ADL22380 | Natriuret | 215 | 74 | 80.4 | 22 | 2 | AAV29914 | CNP analo |
| 143 | 88 | 95.7 | 17 | 8 | ADL22370 | Natriuret | 216 | 74 | 80.4 | 22 | 2 | AAV29720 | CNP analo |
| 144 | 88 | 95.7 | 17 | 8 | ADL22371 | Natriuret | 217 | 74 | 80.4 | 25 | 2 | AAV40711 | [Lys134]h |
| 145 | 88 | 95.7 | 18 | 8 | ADL22371 | Natriuret | 218 | 74 | 80.4 | 25 | 2 | AAV42952 | Polypepti |
| 146 | 88 | 95.7 | 23 | 8 | ADL22359 | Natriuret | 219 | 74 | 80.4 | 28 | 6 | ADA00822 | Human hAN |
| 147 | 88 | 95.7 | 24 | 8 | ADL22360 | Natriuret | 220 | 74 | 80.4 | 32 | 3 | AAV51273 | Human B-t |
| 148 | 88 | 95.7 | 24 | 8 | ADL22356 | Natriuret | 221 | 74 | 80.4 | 32 | 3 | AAV51273 | Human B-t |
| 149 | 88 | 95.7 | 25 | 8 | ADL22356 | Natriuret | 222 | 74 | 80.4 | 32 | 3 | AAV51273 | Human B-t |
| 150 | 88 | 95.7 | 25 | 8 | ADL22357 | Natriuret | 223 | 74 | 80.4 | 37 | 2 | AAW65450 | Lebectin d |
| 151 | 88 | 95.7 | 26 | 8 | ADL22357 | Natriuret | 224 | 74 | 80.4 | 38 | 2 | AAW65449 | Lebectin d |
| 152 | 88 | 95.7 | 32 | 2 | AAW51258 | Human B-t | 225 | 73 | 79.3 | 15 | 8 | ADJ79683 | Human Bra |
| 153 | 88 | 95.7 | 32 | 3 | AAV80212 | Human B-t | 226 | 73 | 79.3 | 17 | 5 | ABG25952 | CNP analo |
| 154 | 88 | 95.7 | 32 | 3 | ADL22376 | Natriuret | 227 | 73 | 79.3 | 17 | 5 | ABG98203 | Human C-t |
| 155 | 88 | 95.7 | 32 | 8 | ADL22387 | Natriuret | 228 | 73 | 79.3 | 17 | 6 | ABG98267 | Human C-t |
| 156 | 88 | 95.7 | 32 | 8 | ADL22375 | Natriuret | 229 | 73 | 79.3 | 17 | 6 | ABG98267 | Human C-t |
| 157 | 88 | 95.7 | 33 | 8 | ADL22377 | Natriuret | 230 | 73 | 79.3 | 22 | 2 | AAV14792 | C-type na |
| 158 | 86 | 93.5 | 19 | 8 | ADP49259 | Natriuret | 231 | 73 | 79.3 | 22 | 2 | AAV29726 | CNP analo |
| 159 | 86 | 93.5 | 25 | 8 | ADP49282 | Natriuret | 232 | 73 | 79.3 | 22 | 2 | AAV29726 | CNP analo |
| 160 | 86 | 93.5 | 30 | 8 | ADP49258 | Natriuret | 233 | 73 | 79.3 | 22 | 2 | AAV29729 | CNP analo |
| 161 | 86 | 93.5 | 30 | 8 | ADL22386 | Natriuret | 234 | 73 | 79.3 | 22 | 2 | AAV29729 | CNP analo |
| 162 | 86 | 93.5 | 32 | 8 | ADP49290 | Natriuret | 235 | 73 | 79.3 | 22 | 2 | AAV29724 | CNP analo |
| 163 | 86 | 93.5 | 32 | 8 | ADP49291 | Natriuret | 236 | 73 | 79.3 | 22 | 2 | AAV29553 | CNP analo |
| 164 | 86 | 93.5 | 33 | 8 | ADP49293 | Natriuret | 237 | 73 | 79.3 | 22 | 2 | AAV32254 | Human CNP |
| 165 | 85 | 92.4 | 32 | 8 | ADL22382 | Natriuret | 238 | 73 | 79.3 | 22 | 3 | AAW21992 | Porcine C |
| 166 | 85 | 92.4 | 32 | 8 | ADL22381 | Natriuret | 239 | 73 | 79.3 | 22 | 3 | AAW24081 | Human PRO |
| 167 | 85 | 92.4 | 33 | 8 | ADL22383 | Natriuret | 240 | 73 | 79.3 | 22 | 3 | AAW24081 | Human PRO |
| 168 | 83 | 90.2 | 25 | 4 | AAV82547 | Human bra | 241 | 73 | 79.3 | 22 | 4 | AAV82551 | Human C-t |
| 169 | 83 | 90.2 | 32 | 2 | AAW51261 | Type-B br | 242 | 73 | 79.3 | 22 | 4 | AAV82551 | Human C-t |
| 170 | 83 | 90.2 | 32 | 3 | AAV80208 | Human B-t | 243 | 73 | 79.3 | 22 | 4 | AAV82551 | Human C-t |

| | | | | | | | | | | | | | |
|-----|----|------|-----|---|----------|-----------|-----|----|------|----|---|----------|-----------|
| 244 | 73 | 79.3 | 22 | 4 | AAE12439 | C-type na | 317 | 72 | 78.3 | 20 | 2 | AAE12439 | [D-Ala133 |
| 245 | 73 | 79.3 | 22 | 4 | AAE12439 | C-type na | 318 | 72 | 78.3 | 21 | 2 | AAE12439 | [D-Ala133 |
| 246 | 73 | 79.3 | 22 | 5 | ABG98202 | Human C-t | 319 | 72 | 78.3 | 22 | 2 | ABG98202 | Brain pep |
| 247 | 73 | 79.3 | 22 | 6 | ADA00766 | Human nat | 320 | 72 | 78.3 | 22 | 2 | ADA00766 | CNP analo |
| 248 | 73 | 79.3 | 22 | 6 | ABU63217 | N-terminu | 321 | 72 | 78.3 | 22 | 2 | ABU63217 | CNP analo |
| 249 | 73 | 79.3 | 22 | 8 | ADP49287 | Human C-t | 322 | 72 | 78.3 | 22 | 4 | ADP49287 | Brain nat |
| 250 | 73 | 79.3 | 22 | 8 | ADP49287 | Natriuret | 323 | 72 | 78.3 | 22 | 4 | ADP49287 | Brain nat |
| 251 | 73 | 79.3 | 22 | 9 | ADW08064 | Human bra | 324 | 72 | 78.3 | 22 | 4 | ADW08064 | C-type na |
| 252 | 73 | 79.3 | 22 | 9 | ADW62996 | Human C-t | 325 | 72 | 78.3 | 22 | 4 | ADW62996 | Chicken C |
| 253 | 73 | 79.3 | 22 | 9 | ADW62996 | Human C-t | 326 | 72 | 78.3 | 24 | 2 | ADW62996 | [Arg129] |
| 254 | 73 | 79.3 | 23 | 4 | AAE12439 | C-type na | 327 | 72 | 78.3 | 24 | 2 | AAE12439 | [D-Ala133 |
| 255 | 73 | 79.3 | 23 | 4 | AAE12439 | C-type na | 328 | 72 | 78.3 | 25 | 2 | AAE12439 | [D-Ala133 |
| 256 | 73 | 79.3 | 27 | 2 | AAE12439 | CNP analo | 329 | 72 | 78.3 | 25 | 2 | AAE12439 | [D-Ala133 |
| 257 | 73 | 79.3 | 27 | 2 | AAE12439 | CNP analo | 330 | 72 | 78.3 | 25 | 2 | AAE12439 | [D-Ala133 |
| 258 | 73 | 79.3 | 27 | 4 | AAE12439 | Vasonatri | 331 | 72 | 78.3 | 25 | 2 | AAE12439 | [D-Ala133 |
| 259 | 73 | 79.3 | 27 | 4 | AAE12439 | C-type na | 332 | 72 | 78.3 | 25 | 2 | AAE12439 | [D-Ala133 |
| 260 | 73 | 79.3 | 27 | 8 | ADL91962 | Vasonatri | 333 | 72 | 78.3 | 27 | 2 | ADL91962 | Bel natri |
| 261 | 73 | 79.3 | 27 | 8 | ADL91962 | Vasonatri | 334 | 72 | 78.3 | 27 | 4 | ADL91962 | Bel natri |
| 262 | 73 | 79.3 | 27 | 8 | ADN03415 | Exemplary | 335 | 72 | 78.3 | 27 | 4 | ADN03415 | Exemplary |
| 263 | 73 | 79.3 | 28 | 2 | ADN03415 | Vasonatri | 336 | 72 | 78.3 | 27 | 4 | ADN03415 | Vasonatri |
| 264 | 73 | 79.3 | 28 | 2 | ADN03415 | Peptide a | 337 | 72 | 78.3 | 32 | 2 | ADN03415 | Peptide a |
| 265 | 73 | 79.3 | 28 | 2 | ADN03415 | Peptide a | 338 | 72 | 78.3 | 32 | 2 | ADN03415 | Peptide a |
| 266 | 73 | 79.3 | 28 | 6 | ADA00776 | Human C-t | 339 | 72 | 78.3 | 32 | 3 | ADA00776 | Human C-t |
| 267 | 73 | 79.3 | 29 | 2 | AAE12439 | Human C-t | 340 | 72 | 78.3 | 32 | 3 | AAE12439 | Human C-t |
| 268 | 73 | 79.3 | 29 | 2 | AAE12439 | Human C-t | 341 | 72 | 78.3 | 32 | 3 | AAE12439 | Human C-t |
| 269 | 73 | 79.3 | 29 | 2 | AAE12439 | Human C-t | 342 | 72 | 78.3 | 32 | 3 | AAE12439 | Human C-t |
| 270 | 73 | 79.3 | 29 | 4 | AAE12439 | Human C-t | 343 | 72 | 78.3 | 32 | 3 | AAE12439 | Human C-t |
| 271 | 73 | 79.3 | 29 | 9 | ADW6895 | NP peptid | 344 | 72 | 78.3 | 17 | 5 | ADW6895 | NP peptid |
| 272 | 73 | 79.3 | 30 | 3 | AAE12439 | Human C-t | 345 | 72 | 78.3 | 17 | 5 | AAE12439 | Human C-t |
| 273 | 73 | 79.3 | 30 | 3 | AAE12439 | Human C-t | 346 | 72 | 78.3 | 17 | 5 | AAE12439 | Human C-t |
| 274 | 73 | 79.3 | 32 | 2 | AAE12439 | Human C-t | 347 | 72 | 78.3 | 17 | 5 | AAE12439 | Human C-t |
| 275 | 73 | 79.3 | 32 | 3 | AAE12439 | Human C-t | 348 | 72 | 78.3 | 17 | 5 | AAE12439 | Human C-t |
| 276 | 73 | 79.3 | 32 | 3 | AAE12439 | Human C-t | 349 | 72 | 78.3 | 17 | 5 | AAE12439 | Human C-t |
| 277 | 73 | 79.3 | 37 | 4 | AAE12439 | Human C-t | 350 | 72 | 78.3 | 18 | 2 | AAE12439 | Human C-t |
| 278 | 73 | 79.3 | 37 | 6 | ABU63211 | Chimeric | 351 | 72 | 78.3 | 18 | 2 | ABU63211 | Chimeric |
| 279 | 73 | 79.3 | 37 | 6 | ABU63211 | Chimeric | 352 | 72 | 78.3 | 18 | 2 | ABU63211 | Chimeric |
| 280 | 73 | 79.3 | 37 | 6 | ABU63211 | Chimeric | 353 | 72 | 78.3 | 18 | 2 | ABU63211 | Chimeric |
| 281 | 73 | 79.3 | 53 | 2 | AAE16490 | Human C-t | 354 | 72 | 78.3 | 19 | 1 | AAE16490 | Human C-t |
| 282 | 73 | 79.3 | 53 | 2 | AAE16490 | Human C-t | 355 | 72 | 78.3 | 19 | 1 | AAE16490 | Human C-t |
| 283 | 73 | 79.3 | 53 | 2 | AAE16490 | Human C-t | 356 | 72 | 78.3 | 19 | 1 | AAE16490 | Human C-t |
| 284 | 73 | 79.3 | 53 | 4 | AAE16490 | Human C-t | 357 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 285 | 73 | 79.3 | 53 | 4 | AAE16490 | Human C-t | 358 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 286 | 73 | 79.3 | 103 | 3 | AAE16490 | Human C-t | 359 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 287 | 73 | 79.3 | 103 | 3 | AAE16490 | Human C-t | 360 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 288 | 73 | 79.3 | 103 | 3 | AAE16490 | Human C-t | 361 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 289 | 73 | 79.3 | 103 | 3 | AAE16490 | Human C-t | 362 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 290 | 73 | 79.3 | 103 | 3 | AAE16490 | Human C-t | 363 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 291 | 73 | 79.3 | 103 | 3 | AAE16490 | Human C-t | 364 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 292 | 73 | 79.3 | 103 | 3 | AAE16490 | Human C-t | 365 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 293 | 73 | 79.3 | 126 | 2 | AAE16490 | Human C-t | 366 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 294 | 73 | 79.3 | 126 | 2 | AAE16490 | Human C-t | 367 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 295 | 73 | 79.3 | 126 | 2 | AAE16490 | Human C-t | 368 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 296 | 73 | 79.3 | 126 | 2 | AAE16490 | Human C-t | 369 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 297 | 73 | 79.3 | 126 | 2 | AAE16490 | Human C-t | 370 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 298 | 73 | 79.3 | 126 | 2 | AAE16490 | Human C-t | 371 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 299 | 73 | 79.3 | 126 | 2 | AAE16490 | Human C-t | 372 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 300 | 73 | 79.3 | 126 | 2 | AAE16490 | Human C-t | 373 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 301 | 73 | 79.3 | 126 | 3 | AAE16490 | Human C-t | 374 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 302 | 73 | 79.3 | 126 | 3 | AAE16490 | Human C-t | 375 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 303 | 73 | 79.3 | 126 | 8 | ABO84726 | Human C-t | 376 | 72 | 78.3 | 20 | 2 | ABO84726 | Human C-t |
| 304 | 73 | 79.3 | 126 | 8 | ABO84726 | Human C-t | 377 | 72 | 78.3 | 20 | 2 | ABO84726 | Human C-t |
| 305 | 73 | 79.3 | 126 | 8 | ABO84726 | Human C-t | 378 | 72 | 78.3 | 20 | 2 | ABO84726 | Human C-t |
| 306 | 73 | 79.3 | 126 | 8 | ADU05015 | Human C-t | 379 | 72 | 78.3 | 20 | 2 | ADU05015 | Human C-t |
| 307 | 73 | 79.3 | 126 | 9 | ADU05015 | Human C-t | 380 | 72 | 78.3 | 20 | 2 | ADU05015 | Human C-t |
| 308 | 73 | 79.3 | 140 | 2 | AAE16490 | Human C-t | 381 | 72 | 78.3 | 20 | 2 | AAE16490 | Human C-t |
| 309 | 73 | 79.3 | 152 | 8 | ADP86020 | Human C-t | 382 | 72 | 78.3 | 20 | 2 | ADP86020 | Human C-t |
| 310 | 73 | 79.3 | 157 | 8 | ADP86020 | Human C-t | 383 | 72 | 78.3 | 20 | 2 | ADP86020 | Human C-t |
| 311 | 72 | 78.3 | 17 | 5 | ABG98247 | Human C-t | 384 | 72 | 78.3 | 22 | 8 | ABG98247 | Human C-t |
| 312 | 72 | 78.3 | 17 | 5 | ABG98247 | Human C-t | 385 | 72 | 78.3 | 22 | 8 | ABG98247 | Human C-t |
| 313 | 72 | 78.3 | 17 | 5 | ABG98247 | Human C-t | 386 | 72 | 78.3 | 22 | 8 | ABG98247 | Human C-t |
| 314 | 72 | 78.3 | 17 | 5 | ABG98247 | Human C-t | 387 | 72 | 78.3 | 22 | 8 | ABG98247 | Human C-t |
| 315 | 72 | 78.3 | 17 | 5 | ABG98247 | Human C-t | 388 | 72 | 78.3 | 22 | 8 | ABG98247 | Human C-t |
| 316 | 72 | 78.3 | 18 | 2 | AAE16490 | Human C-t | 389 | 72 | 78.3 | 23 | 2 | AAE16490 | Human C-t |

| | | | | | | | | | | | | | |
|-----|----|------|----|---|----------|---------------------|-----|----|------|----|---|----------|--------------------|
| 390 | 71 | 77.2 | 23 | 2 | AAR40645 | Aar40645 [Arg129] [| 463 | 71 | 77.2 | 28 | 1 | AAP82005 | Aap82005 Diuretic |
| 391 | 71 | 77.2 | 23 | 2 | AAR36976 | Aar36976 ANVP #40. | 464 | 71 | 77.2 | 28 | 1 | AAP91314 | Aap91314 Sequence |
| 392 | 71 | 77.2 | 23 | 2 | AAR36960 | Aar36960 ANVP #24. | 465 | 71 | 77.2 | 28 | 2 | AAR03306 | Aar03306 Human atr |
| 393 | 71 | 77.2 | 23 | 2 | AAR40395 | Aar40395 hANVP (127 | 466 | 71 | 77.2 | 28 | 2 | AAR04815 | Aar04815 Peptide w |
| 394 | 71 | 77.2 | 23 | 2 | AAR40640 | Aar40640 [Arg129] [| 467 | 71 | 77.2 | 28 | 2 | AAR05859 | Aar05859 Atrial na |
| 395 | 71 | 77.2 | 23 | 2 | AAR40394 | Aar40394 hANVP (127 | 468 | 71 | 77.2 | 28 | 2 | AAR03415 | Aar03415 N-termina |
| 396 | 71 | 77.2 | 23 | 2 | AAR40479 | Aar40479 D-Cys146 | 469 | 71 | 77.2 | 28 | 2 | AAR29725 | Aar29725 CNP analo |
| 397 | 71 | 77.2 | 23 | 2 | AAR40492 | Aar40492 D-Ser148 | 470 | 71 | 77.2 | 28 | 2 | AAR40042 | Aar40042 Leu-(Gly) |
| 398 | 71 | 77.2 | 23 | 2 | AAR40596 | Aar40596 [Arg129]h | 471 | 71 | 77.2 | 28 | 2 | AAR37109 | Aar37109 Protected |
| 399 | 71 | 77.2 | 23 | 2 | AAR40651 | Aar40651 D-Arg129 | 472 | 71 | 77.2 | 28 | 2 | AAR37110 | Aar37110 human atr |
| 400 | 71 | 77.2 | 23 | 2 | AAR40408 | Aar40408 D-Cys130 | 473 | 71 | 77.2 | 28 | 2 | AAR87093 | Aar87093 Atrial na |
| 401 | 71 | 77.2 | 23 | 2 | AAR40608 | Aar40608 [Arg128] [| 474 | 71 | 77.2 | 28 | 2 | AAW11624 | AAW11624 Target pe |
| 402 | 71 | 77.2 | 23 | 2 | AAR40505 | Aar40505 D-Arg127 | 475 | 71 | 77.2 | 28 | 2 | AAW70087 | AAW70087 Alpha hum |
| 403 | 71 | 77.2 | 23 | 2 | AAR40593 | Aar40593 [Arg139]r | 476 | 71 | 77.2 | 28 | 2 | AAW62656 | AAW62656 Human atr |
| 404 | 71 | 77.2 | 23 | 4 | AAR91305 | Aar91305 Atrial-na | 477 | 71 | 77.2 | 28 | 2 | AAW93094 | AAW93094 Natriuret |
| 405 | 71 | 77.2 | 24 | 2 | AAR36940 | Aar36940 ANVP #4. | 478 | 71 | 77.2 | 28 | 3 | AAV98488 | AAV98488 Pep 23 us |
| 406 | 71 | 77.2 | 24 | 2 | AAR40389 | Aar40389 hANVP (127 | 479 | 71 | 77.2 | 28 | 3 | AAV59033 | AAV59033 Sequence |
| 407 | 71 | 77.2 | 24 | 2 | AAR40490 | Aar40490 D-Ser148 | 480 | 71 | 77.2 | 28 | 3 | AAO20102 | AAO20102 Alpha-hum |
| 408 | 71 | 77.2 | 24 | 2 | AAR40390 | Aar40390 hANVP (127 | 481 | 71 | 77.2 | 28 | 4 | AAB82549 | Aab82549 Human atr |
| 409 | 71 | 77.2 | 24 | 2 | AAR40478 | Aar40478 D-Cys146 | 482 | 71 | 77.2 | 28 | 4 | AAB45841 | Aab45841 Nucleic a |
| 410 | 71 | 77.2 | 24 | 2 | AAR40503 | Aar40503 D-Arg127 | 483 | 71 | 77.2 | 28 | 4 | AAB81020 | Aab81020 Atrial na |
| 411 | 71 | 77.2 | 24 | 2 | AAR40407 | Aar40407 D-Cys129 | 484 | 71 | 77.2 | 28 | 4 | AAB91319 | Aab91319 Atrial-na |
| 412 | 71 | 77.2 | 24 | 2 | AAR40584 | Aar40584 [Pro133]h | 485 | 71 | 77.2 | 28 | 4 | AAB91300 | Aab91300 Atrial-na |
| 413 | 71 | 77.2 | 24 | 2 | AAR40406 | Aar40406 D-Cys130 | 486 | 71 | 77.2 | 28 | 4 | AAB45740 | Aab45740 Human A-t |
| 414 | 71 | 77.2 | 24 | 2 | AAR40477 | Aar40477 D-Cys146 | 487 | 71 | 77.2 | 28 | 4 | AAU04278 | AAU04278 Nuclear 1 |
| 415 | 71 | 77.2 | 24 | 2 | AAR40407 | Aar40407 D-Cys130 | 488 | 71 | 77.2 | 28 | 4 | AAE12431 | AAE12431 Human atr |
| 416 | 71 | 77.2 | 24 | 2 | AAR40491 | Aar40491 D-Ser148 | 489 | 71 | 77.2 | 28 | 4 | AAE12431 | AAE12431 Human atr |
| 417 | 71 | 77.2 | 24 | 2 | AAR40504 | Aar40504 D-Arg127 | 490 | 71 | 77.2 | 28 | 5 | AAE12431 | AAE12431 Human atr |
| 418 | 71 | 77.2 | 24 | 2 | AAR40583 | Aar40583 [Pro133]h | 491 | 71 | 77.2 | 28 | 5 | ABG98204 | ABG98204 Human atr |
| 419 | 71 | 77.2 | 24 | 4 | AAE1297 | Aab91297 Atrial-na | 492 | 71 | 77.2 | 28 | 6 | ADA00783 | Ada00783 Human nat |
| 420 | 71 | 77.2 | 24 | 8 | ADL22345 | Adl22345 Natriuret | 493 | 71 | 77.2 | 28 | 6 | ADA00832 | Ada00832 Human hAN |
| 421 | 71 | 77.2 | 24 | 8 | ADL22346 | Adl22346 Natriuret | 494 | 71 | 77.2 | 28 | 6 | ADA00831 | Ada00831 Human hAN |
| 422 | 71 | 77.2 | 25 | 1 | AAE51229 | Aap51229 Sequence | 495 | 71 | 77.2 | 28 | 6 | ADA00829 | Ada00829 Human hAN |
| 423 | 71 | 77.2 | 25 | 1 | AAE71467 | Aap71467 Sequence | 496 | 71 | 77.2 | 28 | 6 | ADA00830 | Ada00830 Human hAN |
| 424 | 71 | 77.2 | 25 | 2 | AAR40456 | Aar40456 D-Leu143 | 497 | 71 | 77.2 | 28 | 6 | ABU63214 | Abu63214 Human atr |
| 425 | 71 | 77.2 | 25 | 2 | AAR40510 | Aar40510 D-Ser129 | 498 | 71 | 77.2 | 28 | 7 | ADP17067 | Adp17067 Human alb |
| 426 | 71 | 77.2 | 25 | 2 | AAR40501 | Aar40501 D-Arg127 | 499 | 71 | 77.2 | 28 | 7 | ADL92004 | Adl92004 Atrial na |
| 427 | 71 | 77.2 | 25 | 2 | AAR40509 | Aar40509 D-Ser128 | 500 | 71 | 77.2 | 28 | 8 | ADL22349 | Adl22349 Natriuret |
| 428 | 71 | 77.2 | 25 | 2 | AAR40582 | Aar40582 [Pro133]h | 501 | 71 | 77.2 | 28 | 8 | ADL22334 | Adl22334 Natriuret |
| 429 | 71 | 77.2 | 25 | 2 | AAR40488 | Aar40488 D-Ser148 | 502 | 71 | 77.2 | 28 | 8 | ADL22331 | Adl22331 Natriuret |
| 430 | 71 | 77.2 | 25 | 2 | AAR40508 | Aar40508 D-Ser128 | 503 | 71 | 77.2 | 28 | 8 | ADL22333 | Adl22333 Natriuret |
| 431 | 71 | 77.2 | 25 | 2 | AAR40404 | Aar40404 D-Cys130 | 504 | 71 | 77.2 | 28 | 8 | ADL22350 | Adl22350 Natriuret |
| 432 | 71 | 77.2 | 25 | 2 | AAR40441 | Aar40441 D-Ala139 | 505 | 71 | 77.2 | 28 | 8 | ADL22332 | Adl22332 Natriuret |
| 433 | 71 | 77.2 | 25 | 2 | AAR40475 | Aar40475 D-Cys146 | 506 | 71 | 77.2 | 28 | 8 | ADM41340 | Adm41340 Human atr |
| 434 | 71 | 77.2 | 25 | 2 | AAR40482 | Aar40482 D-Arg147 | 507 | 71 | 77.2 | 28 | 8 | ADN03290 | Adn03290 Exemplary |
| 435 | 71 | 77.2 | 25 | 2 | AAR40388 | Aar40388 hANVP (127 | 508 | 71 | 77.2 | 28 | 8 | ADP18427 | Adp18427 Neurogene |
| 436 | 71 | 77.2 | 25 | 2 | AAR40405 | Aar40405 D-Cys130 | 509 | 71 | 77.2 | 28 | 8 | ADP18427 | Adp18427 Neurogene |
| 437 | 71 | 77.2 | 25 | 2 | AAR40489 | Aar40489 D-Arg148 | 510 | 71 | 77.2 | 28 | 8 | ADR42125 | Adr42125 Atrial Na |
| 438 | 71 | 77.2 | 25 | 2 | AAR40494 | Aar40494 D-Phe149 | 511 | 71 | 77.2 | 28 | 8 | ADT92528 | Adt92528 Cyclic pe |
| 439 | 71 | 77.2 | 25 | 2 | AAR40507 | Aar40507 D-Ser127 | 512 | 71 | 77.2 | 28 | 9 | ADW6888 | Adw6888 Human alp |
| 440 | 71 | 77.2 | 25 | 2 | AAR40746 | Aar40746 D-Arg136 | 513 | 71 | 77.2 | 28 | 9 | ADW08063 | Adw08063 Human bra |
| 441 | 71 | 77.2 | 25 | 2 | AAR36939 | Aar36939 ANVP #3. | 514 | 71 | 77.2 | 28 | 9 | ADW5864 | Adw5864 Human atr |
| 442 | 71 | 77.2 | 25 | 2 | AAR36955 | Aar36955 ANVP #19. | 515 | 71 | 77.2 | 28 | 9 | ADW45305 | Adw45305 Human fus |
| 443 | 71 | 77.2 | 25 | 2 | AAR40581 | Aar40581 [Pro135]h | 516 | 71 | 77.2 | 28 | 9 | ADW62992 | Adw62992 Human atr |
| 444 | 71 | 77.2 | 25 | 2 | AAR40744 | Aar40744 D-Ile138 | 517 | 71 | 77.2 | 29 | 2 | AAW13079 | AAW13079 Tetradece |
| 445 | 71 | 77.2 | 25 | 2 | AAR40748 | Aar40748 D-Ala140 | 518 | 71 | 77.2 | 29 | 2 | AAW13080 | AAW13080 Tetradece |
| 446 | 71 | 77.2 | 25 | 2 | AAR40476 | Aar40476 D-Cys146 | 519 | 71 | 77.2 | 29 | 2 | AAW67041 | AAW67041 Atrial na |
| 447 | 71 | 77.2 | 25 | 2 | AAR40502 | Aar40502 D-Arg127 | 520 | 71 | 77.2 | 29 | 2 | ADL22335 | Adl22335 Natriuret |
| 448 | 71 | 77.2 | 25 | 2 | AAR42954 | Aar42954 Polypepti | 521 | 71 | 77.2 | 31 | 4 | AAV31170 | AAV31170 Human PSA |
| 449 | 71 | 77.2 | 25 | 4 | AAB91304 | Aab91304 Atrial-na | 522 | 71 | 77.2 | 31 | 4 | AAV31170 | AAV31170 Ubiquitin |
| 450 | 71 | 77.2 | 25 | 8 | ADL73465 | Adl73465 Atrial na | 523 | 71 | 77.2 | 32 | 1 | AAV71466 | AAV71466 Sequence |
| 451 | 71 | 77.2 | 26 | 1 | AAV50113 | Aap50113 Biologica | 524 | 71 | 77.2 | 32 | 1 | AAV71466 | AAV71466 Sequence |
| 452 | 71 | 77.2 | 26 | 4 | AAB91303 | Aab91303 Atrial-na | 525 | 71 | 77.2 | 32 | 2 | AAV80388 | AAV80388 Sequence |
| 453 | 71 | 77.2 | 27 | 2 | AAR25949 | Aar25949 CNP analo | 526 | 71 | 77.2 | 32 | 2 | AAW67039 | AAW67039 Atrial na |
| 454 | 71 | 77.2 | 28 | 1 | AAP50048 | Aap50048 Cardionat | 527 | 71 | 77.2 | 32 | 2 | AAW51279 | AAW51279 Human B-t |
| 455 | 71 | 77.2 | 28 | 1 | AAP50172 | Aap50172 Sequence | 528 | 71 | 77.2 | 32 | 2 | AAW51274 | AAW51274 Human B-t |
| 456 | 71 | 77.2 | 28 | 1 | AAP50118 | Aap50118 Sequence | 529 | 71 | 77.2 | 32 | 2 | AAW51275 | AAW51275 Human B-t |
| 457 | 71 | 77.2 | 28 | 1 | AAP60076 | Aap60076 Sequence | 530 | 71 | 77.2 | 32 | 2 | AAW51271 | AAW51271 Human B-t |
| 458 | 71 | 77.2 | 28 | 1 | AAV61015 | Aap61015 Alpha-fra | 531 | 71 | 77.2 | 32 | 2 | AAW51272 | AAW51272 Human B-t |
| 459 | 71 | 77.2 | 28 | 1 | AAV61400 | Aap61400 Alpha-hum | 532 | 71 | 77.2 | 32 | 2 | AAW51268 | AAW51268 Human B-t |
| 460 | 71 | 77.2 | 28 | 1 | AAV71202 | Aap71202 Lysine fr | 533 | 71 | 77.2 | 32 | 3 | AAV80245 | AAV80245 Human B-t |
| 461 | 71 | 77.2 | 28 | 1 | AAV70655 | Aap70655 Sequence | 534 | 71 | 77.2 | 32 | 3 | AAV80245 | AAV80245 Human B-t |
| 462 | 71 | 77.2 | 28 | 1 | AAV71419 | Aap71419 7,23-Cys (| 535 | 71 | 77.2 | 32 | 3 | AAV80247 | AAV80247 Human B-t |

| | | | | | | | | | | | | | |
|-----|----|------|-----|---|-----------|------------|-----|----|------|-----|---|----------|------------|
| 536 | 71 | 77.2 | 32 | 3 | AAy80241 | Humah B-t | 609 | 70 | 76.1 | 22 | 2 | AAr25956 | CNP analo |
| 537 | 71 | 77.2 | 32 | 3 | AAy80238 | Humah B-t | 610 | 70 | 76.1 | 22 | 2 | AAr29723 | CNP analo |
| 538 | 71 | 77.2 | 32 | 3 | AAy80242 | Human B-t | 611 | 70 | 76.1 | 24 | 1 | AAp94848 | Sequence |
| 539 | 71 | 77.2 | 32 | 3 | AAy80244 | Human B-t | 612 | 70 | 76.1 | 25 | 2 | AAr40710 | [Lys133]r |
| 540 | 71 | 77.2 | 32 | 3 | AAy80249 | Human B-t | 613 | 70 | 76.1 | 28 | 6 | ADA00828 | Human hAN |
| 541 | 71 | 77.2 | 32 | 4 | AAb91328 | Attrial-na | 614 | 70 | 76.1 | 28 | 6 | ADA00813 | Human hAN |
| 542 | 71 | 77.2 | 32 | 4 | AAb70812 | Humanuro | 615 | 70 | 76.1 | 28 | 8 | AdL22336 | Natriuret |
| 543 | 71 | 77.2 | 32 | 6 | ADA00764 | Human nat | 616 | 69 | 75.0 | 17 | 2 | AAW51310 | Human B-t |
| 544 | 71 | 77.2 | 32 | 7 | AdF17063 | Human alb | 617 | 69 | 75.0 | 17 | 5 | ABg98236 | Human C-t |
| 545 | 71 | 77.2 | 32 | 8 | AdL22338 | Natriuret | 618 | 69 | 75.0 | 17 | 5 | ABg98256 | Human C-t |
| 546 | 71 | 77.2 | 32 | 8 | AdL22340 | Natriuret | 619 | 69 | 75.0 | 17 | 3 | ABg98251 | Human C-t |
| 547 | 71 | 77.2 | 32 | 8 | AdL22339 | Natriuret | 620 | 69 | 75.0 | 19 | 3 | AAy80204 | Human B-t |
| 548 | 71 | 77.2 | 32 | 8 | AdP49276 | Natriuret | 621 | 69 | 75.0 | 26 | 8 | AdP49304 | Natriuret |
| 549 | 71 | 77.2 | 35 | 1 | AAp50112 | Biologica | 622 | 69 | 75.0 | 28 | 6 | ADA00824 | Human hAN |
| 550 | 71 | 77.2 | 35 | 1 | AAp61765 | Sequence | 623 | 69 | 75.0 | 28 | 6 | ADA00833 | Human hAN |
| 551 | 71 | 77.2 | 35 | 2 | AAr08328 | Chelated | 624 | 69 | 75.0 | 28 | 6 | ADA00814 | Human hAN |
| 552 | 71 | 77.2 | 35 | 2 | AAr06353 | Attrial na | 625 | 69 | 75.0 | 28 | 6 | ADA00826 | Human hAN |
| 553 | 71 | 77.2 | 40 | 2 | AAW21945 | Fusion pr | 626 | 69 | 75.0 | 32 | 2 | AAW51283 | Human B-t |
| 554 | 71 | 77.2 | 40 | 2 | AAW33021 | Fusion pr | 627 | 69 | 75.0 | 32 | 2 | AAW51280 | Human B-t |
| 555 | 71 | 77.2 | 42 | 2 | AAr13323 | Alpha-hum | 628 | 69 | 75.0 | 32 | 3 | AAy80250 | Human B-t |
| 556 | 71 | 77.2 | 43 | 1 | AAp60078 | Sequence | 629 | 69 | 75.0 | 32 | 3 | AAy80253 | Human B-t |
| 557 | 71 | 77.2 | 43 | 1 | AAp81211 | Alpha-hum | 630 | 69 | 75.0 | 115 | 2 | AAr29911 | Type C na |
| 558 | 71 | 77.2 | 56 | 4 | AAb91313 | Attrial-na | 631 | 69 | 75.0 | 196 | 7 | AdP44937 | Heloderma |
| 559 | 71 | 77.2 | 88 | 1 | AAp50493 | Cardiolil | 632 | 69 | 75.0 | 265 | 6 | ABp56118 | Bothrops |
| 560 | 71 | 77.2 | 101 | 9 | ABE50531 | Human hea | 633 | 68 | 73.9 | 17 | 5 | ABg98264 | Human C-t |
| 561 | 71 | 77.2 | 118 | 9 | ABE50532 | Human hea | 634 | 68 | 73.9 | 17 | 5 | ABg98271 | Human C-t |
| 562 | 71 | 77.2 | 125 | 1 | AAp82656 | Vasodilat | 635 | 68 | 73.9 | 17 | 5 | ABg98210 | Human C-t |
| 563 | 71 | 77.2 | 126 | 1 | AAp50037 | Sequence | 636 | 68 | 73.9 | 17 | 5 | ABg98249 | Human C-t |
| 564 | 71 | 77.2 | 126 | 1 | AAp51240 | Sequence | 637 | 68 | 73.9 | 17 | 5 | ABg98254 | Human C-t |
| 565 | 71 | 77.2 | 126 | 2 | AAr00582 | Humah gam | 638 | 68 | 73.9 | 17 | 5 | ABg98238 | Human C-t |
| 566 | 71 | 77.2 | 126 | 2 | AAW34533 | Humah atr | 639 | 68 | 73.9 | 17 | 5 | ABg98232 | Human C-t |
| 567 | 71 | 77.2 | 126 | 8 | AdR75284 | Humah atr | 640 | 68 | 73.9 | 18 | 2 | AAr40621 | [Arg128] l |
| 568 | 71 | 77.2 | 126 | 8 | AdU005013 | Aminb aci | 641 | 68 | 73.9 | 20 | 2 | AAr40694 | [Nle134]h |
| 569 | 71 | 77.2 | 126 | 8 | AdU04662 | Humah aci | 642 | 68 | 73.9 | 20 | 2 | AAr40428 | [D-Ala132 |
| 570 | 71 | 77.2 | 126 | 9 | AdW95863 | Humah pro | 643 | 68 | 73.9 | 21 | 2 | AAr40620 | [Arg128] l |
| 571 | 71 | 77.2 | 126 | 9 | AdY34279 | Humah atr | 644 | 68 | 73.9 | 22 | 1 | AAp50902 | Sequence |
| 572 | 71 | 77.2 | 128 | 8 | AdP99246 | Attrial na | 645 | 68 | 73.9 | 22 | 2 | AAr25708 | Attrial na |
| 573 | 71 | 77.2 | 129 | 3 | AAb23976 | Plasmid p | 646 | 68 | 73.9 | 22 | 2 | AAr29774 | Attrial na |
| 574 | 71 | 77.2 | 131 | 2 | AAr13325 | Cla prote | 647 | 68 | 73.9 | 22 | 2 | AAr29773 | Attrial na |
| 575 | 71 | 77.2 | 133 | 1 | AAp60080 | Sequence | 648 | 68 | 73.9 | 22 | 4 | AAE12441 | Frog C-ty |
| 576 | 71 | 77.2 | 136 | 1 | AAr36935 | Humah pre | 649 | 68 | 73.9 | 23 | 2 | AAr36975 | ANVP #39 |
| 577 | 71 | 77.2 | 144 | 2 | AAr21677 | Beta-gal | 650 | 68 | 73.9 | 23 | 2 | AAr36968 | ANVP #32 |
| 578 | 71 | 77.2 | 144 | 2 | AAr21676 | Beta-gal | 651 | 68 | 73.9 | 23 | 2 | AAr40427 | [D-Ala132 |
| 579 | 71 | 77.2 | 147 | 2 | AAr03301 | Sequence | 652 | 68 | 73.9 | 23 | 2 | AAr40619 | [Arg129] l |
| 580 | 71 | 77.2 | 150 | 1 | AAp51239 | Sequence | 653 | 68 | 73.9 | 23 | 2 | AAr40695 | [Nle134]h |
| 581 | 71 | 77.2 | 150 | 1 | AAp51241 | Sequence | 654 | 68 | 73.9 | 24 | 1 | AAp50908 | Sequence |
| 582 | 71 | 77.2 | 151 | 1 | AAp50050 | Cardiolil | 655 | 68 | 73.9 | 24 | 2 | AAr40692 | [Nle134]h |
| 583 | 71 | 77.2 | 151 | 1 | AAp50036 | Sequence | 656 | 68 | 73.9 | 24 | 2 | AAr40693 | [Nle134]h |
| 584 | 71 | 77.2 | 151 | 1 | AAp70629 | Sequence | 657 | 68 | 73.9 | 24 | 2 | AAr40425 | [D-Ala132 |
| 585 | 71 | 77.2 | 151 | 2 | AAr36934 | Humah pre | 658 | 68 | 73.9 | 25 | 2 | AAr36954 | ANVP #18 |
| 586 | 71 | 77.2 | 151 | 2 | AAW98193 | Humah atr | 659 | 68 | 73.9 | 25 | 2 | AAr40713 | [Lys137]h |
| 587 | 71 | 77.2 | 151 | 8 | ADMA1415 | Humah atr | 660 | 68 | 73.9 | 25 | 2 | AAr40440 | [D-Ala138 |
| 588 | 71 | 77.2 | 151 | 8 | ADMA1343 | Humah pre | 661 | 68 | 73.9 | 25 | 2 | AAr40691 | [Nle134]h |
| 589 | 71 | 77.2 | 151 | 8 | AdR75285 | Humah atr | 662 | 68 | 73.9 | 25 | 2 | AAr36947 | ANVP #11 |
| 590 | 71 | 77.2 | 151 | 8 | AdU005014 | Aminb aci | 663 | 68 | 73.9 | 25 | 2 | AAr40423 | [D-Ala132 |
| 591 | 71 | 77.2 | 151 | 8 | AAW36934 | Humah pre | 664 | 68 | 73.9 | 25 | 2 | AAr36954 | ANVP #18 |
| 592 | 71 | 77.2 | 151 | 9 | AdY34280 | Humah atr | 665 | 68 | 73.9 | 25 | 2 | AAr40713 | [Lys137]h |
| 593 | 71 | 77.2 | 151 | 9 | ABE50582 | Humah atr | 666 | 68 | 73.9 | 25 | 2 | AAr40440 | [D-Ala138 |
| 594 | 71 | 77.2 | 153 | 8 | ADMA1429 | Bovine at | 667 | 68 | 73.9 | 25 | 2 | AAr40691 | [Nle134]h |
| 595 | 71 | 77.2 | 153 | 8 | AdF44952 | Humah atr | 668 | 68 | 73.9 | 25 | 2 | AAr40690 | [Nle134]h |
| 596 | 71 | 77.2 | 161 | 5 | ABP33228 | Humah ORF | 669 | 68 | 73.9 | 28 | 6 | ADA00825 | Human hAN |
| 597 | 71 | 77.2 | 168 | 4 | AAb81019 | Intekleuk | 670 | 68 | 73.9 | 28 | 6 | ADA00823 | Human hAN |
| 598 | 71 | 77.2 | 198 | 5 | ABP69270 | Humah pol | 671 | 68 | 73.9 | 28 | 8 | AdL22342 | Natriuret |
| 599 | 71 | 77.2 | 240 | 2 | AAr05425 | Aminb aci | 672 | 68 | 73.9 | 32 | 3 | AAW51278 | Human B-t |
| 600 | 71 | 77.2 | 241 | 1 | AAp92070 | Sequence | 673 | 68 | 73.9 | 32 | 3 | AAy80248 | Human B-t |
| 601 | 71 | 77.2 | 340 | 3 | AAO20104 | Gene-9 al | 674 | 67 | 72.8 | 17 | 1 | AAp71036 | Peptide w |
| 602 | 71 | 77.2 | 637 | 9 | ADW45218 | Human ser | 675 | 67 | 72.8 | 17 | 1 | AAp71034 | Peptide w |
| 603 | 70 | 76.1 | 17 | 5 | ABg98246 | Human C-t | 676 | 67 | 72.8 | 17 | 1 | AAp82493 | Cyclic pe |
| 604 | 70 | 76.1 | 17 | 5 | ABg98257 | Human C-t | 677 | 67 | 72.8 | 17 | 5 | ABg98259 | Human C-t |
| 605 | 70 | 76.1 | 17 | 5 | ABg98258 | Human C-t | 678 | 67 | 72.8 | 17 | 5 | ABg98231 | Human C-t |
| 606 | 70 | 76.1 | 17 | 5 | ABg98250 | Human C-t | 679 | 67 | 72.8 | 17 | 5 | ABg98209 | Human C-t |
| 607 | 70 | 76.1 | 17 | 5 | ABg98255 | Human C-t | 680 | 67 | 72.8 | 17 | 5 | ABg98226 | Human C-t |
| 608 | 70 | 76.1 | 22 | 2 | AAr25954 | CNP analo | 681 | 67 | 72.8 | 17 | 5 | ABg98262 | Human C-t |

| | | | | | | | | | | | |
|-----|----|------|----|---|----------|---------------------|-----|----|---|----------|---------------------|
| 682 | 67 | 72.8 | 17 | 5 | ABG98245 | ABG98245 Human C-t | 755 | 24 | 2 | AAR36938 | AAR36938 ANVP #2. |
| 683 | 67 | 72.8 | 17 | 5 | ABG98272 | ABG98272 Human C-t | 756 | 24 | 2 | AAR40391 | AAR40391 rANVP (126 |
| 684 | 67 | 72.8 | 17 | 5 | ABG98227 | ABG98227 Human C-t | 757 | 24 | 2 | AAR40577 | AAR40577 [Pro132]r |
| 685 | 67 | 72.8 | 17 | 5 | ABG98229 | ABG98229 Human C-t | 758 | 24 | 2 | AAR40471 | AAR40471 [D-Cys145 |
| 686 | 67 | 72.8 | 17 | 5 | ABG98237 | ABG98237 Human C-t | 759 | 24 | 2 | AAR40498 | AAR40498 [D-Arg126 |
| 687 | 67 | 72.8 | 17 | 5 | ABG98230 | ABG98230 Human C-t | 760 | 24 | 2 | AAR40402 | AAR40402 [D-Cys129 |
| 688 | 67 | 72.8 | 17 | 6 | AAR37839 | AAR37839 Rat atria | 761 | 24 | 2 | AAR40497 | AAR40497 [D-Arg126 |
| 689 | 67 | 72.8 | 18 | 2 | AAR40601 | AAR40601 [Arg128]r | 762 | 24 | 4 | AAB91311 | AAB91311 Atrial-na |
| 690 | 67 | 72.8 | 18 | 2 | AAR40639 | AAR40639 [Arg128]r | 763 | 24 | 4 | AAB91329 | AAB91329 Atrial-na |
| 691 | 67 | 72.8 | 18 | 2 | AAR40650 | AAR40650 [D-Arg128 | 764 | 24 | 4 | AAB91326 | AAB91326 Atrial-na |
| 692 | 67 | 72.8 | 20 | 2 | AAR40580 | AAR40580 [Pro132]r | 765 | 24 | 4 | AAB91309 | AAB91309 Atrial-na |
| 693 | 67 | 72.8 | 20 | 2 | AAR40474 | AAR40474 [D-Cys145 | 766 | 25 | 1 | AAP51235 | AAP51235 Sequence |
| 694 | 67 | 72.8 | 20 | 2 | AAR40403 | AAR40403 [D-Cys129 | 767 | 25 | 1 | AAP61016 | AAP61016 Alpha-fra |
| 695 | 67 | 72.8 | 20 | 2 | AAR40500 | AAR40500 [D-Arg126 | 768 | 25 | 1 | AAP61025 | AAP61025 Peptide h |
| 696 | 67 | 72.8 | 20 | 2 | AAR40393 | AAR40393 rANVP (126 | 769 | 25 | 2 | AAR40741 | AAR40741 [Glul136]h |
| 697 | 67 | 72.8 | 20 | 2 | AAR40392 | AAR40392 rANVP (126 | 770 | 25 | 2 | AAR36952 | AAR36952 ANVP #16. |
| 698 | 67 | 72.8 | 21 | 1 | AAP60769 | AAP60769 Rat atrio | 771 | 25 | 2 | AAR36956 | AAR36956 ANVP #20. |
| 699 | 67 | 72.8 | 21 | 1 | AAR36962 | AAR36962 ANVP #26. | 772 | 25 | 2 | AAR40742 | AAR40742 [D-Ile134 |
| 700 | 67 | 72.8 | 21 | 2 | AAR40607 | AAR40607 [Arg128]r | 773 | 25 | 2 | AAR36950 | AAR36950 ANVP #14. |
| 701 | 67 | 72.8 | 21 | 2 | AAR40594 | AAR40594 [Arg128]r | 774 | 25 | 2 | AAR36951 | AAR36951 ANVP #15. |
| 702 | 67 | 72.8 | 21 | 2 | AAR40649 | AAR40649 [D-Arg128 | 775 | 25 | 2 | AAR36951 | AAR36951 ANVP #15. |
| 703 | 67 | 72.8 | 21 | 2 | AAR40638 | AAR40638 [Arg128]r | 776 | 25 | 2 | AAR40387 | AAR40387 rANVP (126 |
| 704 | 67 | 72.8 | 21 | 4 | AAB91307 | AAB91307 Atrial-na | 777 | 25 | 2 | AAR40443 | AAR40443 [D-Ser141 |
| 705 | 67 | 72.8 | 22 | 1 | AAP50904 | AAP50904 Sequence | 778 | 25 | 2 | AAR36937 | AAR36937 ANVP #1. |
| 706 | 67 | 72.8 | 22 | 1 | AAP83168 | AAP83168 Atrial Na | 779 | 25 | 2 | AAR40410 | AAR40410 [D-Phe130 |
| 707 | 67 | 72.8 | 22 | 1 | AAP83177 | AAP83177 Atrial Na | 780 | 25 | 2 | AAR40484 | AAR40484 [D-Asn147 |
| 708 | 67 | 72.8 | 22 | 2 | AAR25713 | AAR25713 Atrial na | 781 | 25 | 2 | AAR36944 | AAR36944 ANVP #8. |
| 709 | 67 | 72.8 | 22 | 2 | AAR21589 | AAR21589 ANF (7-28 | 782 | 25 | 2 | AAR36945 | AAR36945 ANVP #9. |
| 710 | 67 | 72.8 | 22 | 2 | AAR21588 | AAR21588 ANF (7-28 | 783 | 25 | 2 | AAR36953 | AAR36953 ANVP #17. |
| 711 | 67 | 72.8 | 22 | 2 | AAR40644 | AAR40644 [Arg128]r | 784 | 25 | 2 | AAR40745 | AAR40745 [D-Asp135 |
| 712 | 67 | 72.8 | 22 | 2 | AAR40592 | AAR40592 [Arg128]r | 785 | 25 | 2 | AAR40398 | AAR40398 [D-Cys129 |
| 713 | 67 | 72.8 | 22 | 2 | AAR36959 | AAR36959 ANVP #23. | 786 | 25 | 2 | AAR40399 | AAR40399 [D-Cys129 |
| 714 | 67 | 72.8 | 22 | 8 | ADL22343 | ADL22343 Natriuret | 787 | 25 | 2 | AAR40576 | AAR40576 [Pro132]r |
| 715 | 67 | 72.8 | 22 | 8 | ADL22353 | ADL22353 Natriuret | 788 | 25 | 2 | AAR40743 | AAR40743 [D-Ile137 |
| 716 | 67 | 72.8 | 22 | 8 | ADL22344 | ADL22344 Natriuret | 789 | 25 | 2 | AAR36946 | AAR36946 ANVP #10. |
| 717 | 67 | 72.8 | 23 | 1 | AAP60770 | AAP60770 Rat atrio | 790 | 25 | 2 | AAR40470 | AAR40470 [D-Cys145 |
| 718 | 67 | 72.8 | 23 | 1 | AAP71131 | AAP71131 Sequence | 791 | 25 | 2 | AAR40493 | AAR40493 [D-Phe148 |
| 719 | 67 | 72.8 | 23 | 1 | AAP71148 | AAP71148 Natriuret | 792 | 25 | 2 | AAR40495 | AAR40495 [D-Arg126 |
| 720 | 67 | 72.8 | 23 | 1 | AAP82915 | AAP82915 4-fluoro- | 793 | 25 | 2 | AAR36948 | AAR36948 ANVP #12. |
| 721 | 67 | 72.8 | 23 | 1 | AAP82984 | AAP82984 Alpha-hum | 794 | 25 | 2 | AAR40481 | AAR40481 [D-Asn146 |
| 722 | 67 | 72.8 | 23 | 2 | AAR36941 | AAR36941 ANVP #5. | 795 | 25 | 2 | AAR40483 | AAR40483 [D-Asn147 |
| 723 | 67 | 72.8 | 23 | 2 | AAR36969 | AAR36969 ANVP #33. | 796 | 25 | 2 | AAR40496 | AAR40496 [D-Arg126 |
| 724 | 67 | 72.8 | 23 | 2 | AAR36974 | AAR36974 ANVP #38. | 797 | 25 | 2 | AAB91312 | AAB91312 Atrial-na |
| 725 | 67 | 72.8 | 23 | 2 | AAR36974 | AAR36974 [D-Asn147 | 798 | 25 | 2 | AAP51106 | AAP51106 Sequence |
| 726 | 67 | 72.8 | 23 | 2 | AAR36967 | AAR36967 ANVP #31. | 799 | 25 | 1 | AAP60807 | AAP60807 Atrial na |
| 727 | 67 | 72.8 | 23 | 2 | AAR40473 | AAR40473 [D-Cys145 | 800 | 26 | 1 | AAP71130 | AAP71130 Sequence |
| 728 | 67 | 72.8 | 23 | 2 | AAR40499 | AAR40499 [D-Arg126 | 801 | 26 | 1 | AAP70966 | AAP70966 Sequence |
| 729 | 67 | 72.8 | 23 | 2 | AAR36958 | AAR36958 ANVP #22. | 802 | 26 | 2 | AAR08309 | AAR08309 Chelated |
| 730 | 67 | 72.8 | 23 | 2 | AAR36972 | AAR36972 ANVP #36. | 803 | 26 | 2 | AAR21586 | AAR21586 ANF (3-28 |
| 731 | 67 | 72.8 | 23 | 2 | AAR36971 | AAR36971 ANVP #35. | 804 | 26 | 4 | AAB91302 | AAB91302 Atrial-na |
| 732 | 67 | 72.8 | 23 | 2 | AAR40591 | AAR40591 [Arg128]r | 805 | 27 | 1 | AAP60084 | AAP60084 Sequence |
| 733 | 67 | 72.8 | 23 | 2 | AAR36977 | AAR36977 ANVP #41. | 806 | 27 | 1 | AAP71464 | AAP71464 Sequence |
| 734 | 67 | 72.8 | 23 | 2 | AAR40606 | AAR40606 [Arg128]r | 807 | 27 | 1 | AAP70970 | AAP70970 Sequence |
| 735 | 67 | 72.8 | 23 | 2 | AAR40648 | AAR40648 [D-Arg128 | 808 | 27 | 1 | AAR03305 | AAR03305 Rat atria |
| 736 | 67 | 72.8 | 23 | 2 | AAR36965 | AAR36965 ANVP #29. | 809 | 28 | 2 | AAR04819 | AAR04819 Peptide w |
| 737 | 67 | 72.8 | 23 | 2 | AAR36966 | AAR36966 ANVP #30. | 810 | 28 | 2 | AAR04941 | AAR04941 Atrial na |
| 738 | 67 | 72.8 | 23 | 2 | AAR40599 | AAR40599 [Arg128]r | 811 | 28 | 2 | AAR03302 | AAR03302 Sequence |
| 739 | 67 | 72.8 | 23 | 2 | AAR40579 | AAR40579 [Pro132]r | 812 | 28 | 2 | AAR93686 | AAR93686 hANP(1-28 |
| 740 | 67 | 72.8 | 23 | 2 | AAR40637 | AAR40637 [Arg128]r | 813 | 28 | 2 | AAR00088 | AAR00088 Alpha rat |
| 741 | 67 | 72.8 | 23 | 2 | AAR40643 | AAR40643 [Arg128]r | 814 | 28 | 2 | AAR03308 | AAR03308 Human A-t |
| 742 | 67 | 72.8 | 23 | 2 | AAR36973 | AAR36973 ANVP #37. | 815 | 28 | 2 | AAR03308 | AAR03308 Natriuret |
| 743 | 67 | 72.8 | 23 | 2 | AAR40612 | AAR40612 [Arg128]r | 816 | 28 | 3 | AAY80216 | AAY80216 Human A-t |
| 744 | 67 | 72.8 | 23 | 2 | AAB91308 | AAB91308 Atrial-na | 817 | 28 | 4 | AAB91310 | AAB91310 Atrial-na |
| 745 | 67 | 72.8 | 24 | 1 | AAP50848 | AAP50848 Sequence | 818 | 28 | 6 | AAE12432 | AAE12432 Rat atria |
| 746 | 67 | 72.8 | 24 | 1 | AAP51230 | AAP51230 Sequence | 819 | 28 | 6 | ADA00771 | ADA00771 Rat natri |
| 747 | 67 | 72.8 | 24 | 1 | AAP60771 | AAP60771 Rat atrio | 820 | 28 | 6 | ADA00789 | ADA00789 Rat natri |
| 748 | 67 | 72.8 | 24 | 1 | AAP70964 | AAP70964 Sequence | 821 | 28 | 6 | ADA00785 | ADA00785 Post-tran |
| 749 | 67 | 72.8 | 24 | 1 | AAP94850 | AAP94850 Sequence | 822 | 28 | 8 | ADQ26469 | ADQ26469 Post-tran |
| 750 | 67 | 72.8 | 24 | 2 | AAR40485 | AAR40485 [D-Asn147 | 823 | 28 | 9 | ADV86889 | ADV86889 Rat alpha |
| 751 | 67 | 72.8 | 24 | 2 | AAR40401 | AAR40401 [D-Cys129 | 824 | 31 | 1 | AAP51105 | AAP51105 Sequence |
| 752 | 67 | 72.8 | 24 | 2 | AAR40486 | AAR40486 [D-Asn147 | 825 | 31 | 1 | AAP71465 | AAP71465 Sequence |
| 753 | 67 | 72.8 | 24 | 2 | AAR40472 | AAR40472 [D-Cys145 | 826 | 32 | 1 | AAP51104 | AAP51104 Sequence |
| 754 | 67 | 72.8 | 24 | 2 | AAR40578 | AAR40578 [Pro132]r | 827 | 32 | 2 | AAP51270 | AAP51270 Human B-t |

| | | | | | | | | | | | |
|-----|------|------|-----|----------|--------------------|-----|----|------|----|----------|----------------------|
| 828 | 67 | 72.8 | 2 | AAW51286 | Aaw51286 Humah B-t | 901 | 65 | 70.7 | 5 | ABG98207 | Abg98207 Human C-t |
| 829 | 67 | 72.8 | 3 | AAW80256 | Aay80256 Humah B-t | 902 | 65 | 70.7 | 5 | ABG98265 | Abg98265 Human C-t |
| 830 | 67 | 72.8 | 32 | AAW80240 | Aay80240 Humah B-t | 903 | 65 | 70.7 | 17 | ABG98261 | Abg98261 Human C-t |
| 831 | 67 | 72.8 | 32 | AAW91314 | Aab91314 Atrial-na | 904 | 65 | 70.7 | 17 | ABG98235 | Abg98235 Human C-t |
| 832 | 67 | 72.8 | 33 | AAW51103 | Aap51103 Sequence | 905 | 65 | 70.7 | 17 | ABG98208 | Abg98208 Human C-t |
| 833 | 67 | 72.8 | 35 | AAW60270 | Aap60270 Sequence | 906 | 65 | 70.7 | 18 | AAW40618 | Aar40618 [Arg129] |
| 834 | 67 | 72.8 | 35 | AAW08327 | Aar08327 Chelated | 907 | 65 | 70.7 | 18 | AAW40618 | Aar40618 [Arg129] |
| 835 | 67 | 72.8 | 35 | AAW06352 | Aar06352 Atrial na | 908 | 65 | 70.7 | 18 | AAW40665 | Aar40665 [Arg129] |
| 836 | 67 | 72.8 | 48 | AAW50115 | Aap50115 Rat atria | 909 | 65 | 70.7 | 18 | AAW40636 | Aar40636 [Arg129] |
| 837 | 67 | 72.8 | 62 | AAW60165 | Aap60165 Rat recom | 910 | 65 | 70.7 | 20 | AAW40422 | Aar40422 [D-Ala132] |
| 838 | 67 | 72.8 | 71 | AAW51102 | Aap51102 Sequence | 911 | 65 | 70.7 | 20 | AAW40455 | Aar40455 [D-Ala143] |
| 839 | 67 | 72.8 | 73 | AAW51107 | Aap51107 Sequence | 912 | 65 | 70.7 | 20 | AAW40546 | Aar40546 [D-Cys130] |
| 840 | 67 | 72.8 | 111 | AAW50565 | Aap50565 Sequence | 913 | 65 | 70.7 | 20 | AAW40454 | Aar40454 [D-Ala143] |
| 841 | 67 | 72.8 | 126 | AAW60017 | Aap60017 Sequence | 914 | 65 | 70.7 | 20 | AAW40725 | Aar40725 [Leu131]h |
| 842 | 67 | 72.8 | 128 | AAW51238 | Aap51238 Sequence | 915 | 65 | 70.7 | 20 | AAW40534 | Aar40534 [D-Ala132] |
| 843 | 67 | 72.8 | 152 | AAW51242 | Aap51242 Sequence | 916 | 65 | 70.7 | 20 | AAW40468 | Aar40468 [D-Ala145] |
| 844 | 67 | 72.8 | 152 | AAW60325 | Ggamma-na | 917 | 65 | 70.7 | 20 | AAW40707 | Aar40707 [Ser136]h |
| 845 | 67 | 72.8 | 152 | AAW36936 | Aar36936 Rat pre-p | 918 | 65 | 70.7 | 21 | AAW40629 | Aar40629 [Arg129] |
| 846 | 67 | 72.8 | 152 | AAW98191 | Aar98191 Rat atria | 919 | 65 | 70.7 | 21 | AAW40635 | Aar40635 [Arg129] |
| 847 | 67 | 72.8 | 152 | AAW41352 | Adm41352 Murine pr | 920 | 65 | 70.7 | 21 | AAW40664 | Aar40664 [Arg129] |
| 848 | 66 | 71.7 | 17 | ABG98244 | Abg98244 Human C-t | 921 | 65 | 70.7 | 21 | AAW40617 | Aar40617 [Arg129] |
| 849 | 66 | 71.7 | 17 | ABG98234 | Abg98234 Humah C-t | 922 | 65 | 70.7 | 21 | AAW40617 | Aar40617 [Arg129] |
| 850 | 66 | 71.7 | 17 | ABG98233 | Abg98233 Humah C-t | 923 | 65 | 70.7 | 22 | AAW25711 | Aar25711 Atrial na |
| 851 | 66 | 71.7 | 20 | AAW40568 | Aar40568 [Asn136]h | 924 | 65 | 70.7 | 22 | AAW25712 | Aar25712 Atrial na |
| 852 | 66 | 71.7 | 20 | AAW40574 | Aar40574 [Phe134]r | 925 | 65 | 70.7 | 22 | AAW25743 | Aar25743 Atrial na |
| 853 | 66 | 71.7 | 20 | AAW91293 | Aar91293 Atrial-na | 926 | 65 | 70.7 | 23 | AAW71447 | Aar71447 NatrIurec |
| 854 | 66 | 71.7 | 20 | AAW05585 | Abb05585 Dithiol p | 927 | 65 | 70.7 | 23 | AAW70962 | Aap70962 Sequence |
| 855 | 66 | 71.7 | 21 | AAW03304 | Aar03304 FANP-21 f | 928 | 65 | 70.7 | 23 | AAW40533 | Aar40533 [D-Ala132] |
| 856 | 66 | 71.7 | 21 | AAW91294 | Aar91294 Atrial-na | 929 | 65 | 70.7 | 23 | AAW40556 | Aar40556 [D-Ala145] |
| 857 | 66 | 71.7 | 22 | AAW21828 | Aar21828 Sequence | 930 | 65 | 70.7 | 23 | AAW40724 | Aar40724 [Leu131]h |
| 858 | 66 | 71.7 | 23 | AAW26884 | Alpha-hum | 931 | 65 | 70.7 | 23 | AAW40634 | Aar40634 [Arg129] |
| 859 | 66 | 71.7 | 23 | AAW36978 | Aar36978 ANVP #42. | 932 | 65 | 70.7 | 23 | AAW40663 | Aar40663 [Arg129] |
| 860 | 66 | 71.7 | 23 | AAW40573 | Aar40573 [Phe134]r | 933 | 65 | 70.7 | 23 | AAW40467 | Aar40467 [D-Ala145] |
| 861 | 66 | 71.7 | 23 | AAW40567 | Aar40567 [Asn136]h | 934 | 65 | 70.7 | 23 | AAW40545 | Aar40545 [D-Cys130] |
| 862 | 66 | 71.7 | 24 | AAW03303 | FANP-24 f | 935 | 65 | 70.7 | 23 | AAW40628 | Aar40628 [Arg129] |
| 863 | 66 | 71.7 | 24 | AAW04818 | Peptide w | 936 | 65 | 70.7 | 23 | AAW40421 | Aar40421 [D-Ala132] |
| 864 | 66 | 71.7 | 24 | AAW04813 | Peptide a | 937 | 65 | 70.7 | 23 | AAW40616 | Aar40616 [Arg129] |
| 865 | 66 | 71.7 | 24 | AAW40565 | [Asn136]h | 938 | 65 | 70.7 | 23 | AAW40706 | Aar40706 [Ser136]h |
| 866 | 66 | 71.7 | 24 | AAW40566 | [Asn136]h | 939 | 65 | 70.7 | 23 | AAW40552 | Aar40552 [D-Ala132] |
| 867 | 66 | 71.7 | 24 | AAW40571 | [Phe134]r | 940 | 65 | 70.7 | 24 | AAW04102 | Intranaa |
| 868 | 66 | 71.7 | 24 | AAW40572 | [Phe134]r | 941 | 65 | 70.7 | 24 | AAW40453 | Aar40453 [D-Ala143] |
| 869 | 66 | 71.7 | 24 | AAW70091 | Aar70091 Atrial na | 942 | 65 | 70.7 | 24 | AAW40544 | Aar40544 [D-Cys130] |
| 870 | 66 | 71.7 | 24 | AAW91295 | Aar91295 Atrial-na | 943 | 65 | 70.7 | 24 | AAW40531 | Aar40531 [D-Ala132] |
| 871 | 66 | 71.7 | 24 | AAW91292 | Atrial-na | 944 | 65 | 70.7 | 24 | AAW40704 | Aar40704 [Ser136]h |
| 872 | 66 | 71.7 | 24 | AAW12435 | Frog atri | 945 | 65 | 70.7 | 24 | AAW40723 | Aar40723 [Leu131]h |
| 873 | 66 | 71.7 | 24 | AAW86892 | Bovine AN | 946 | 65 | 70.7 | 24 | AAW40452 | Aar40452 [D-Ala143] |
| 874 | 66 | 71.7 | 25 | AAW51234 | Sequence | 947 | 65 | 70.7 | 24 | AAW40532 | Aar40532 [D-Ala132] |
| 875 | 66 | 71.7 | 25 | AAW40569 | Aar40569 [Phe134]r | 948 | 65 | 70.7 | 24 | AAW40705 | Aar40705 [Ser136]h |
| 876 | 66 | 71.7 | 25 | AAW40570 | Aar40570 [Phe134]r | 949 | 65 | 70.7 | 24 | AAW40419 | Aar40419 [D-Ala132] |
| 877 | 66 | 71.7 | 25 | AAW40564 | [Asn136]h | 950 | 65 | 70.7 | 24 | AAW40465 | Aar40465 [D-Ala145] |
| 878 | 66 | 71.7 | 25 | AAW40563 | [Asn136]h | 951 | 65 | 70.7 | 24 | AAW40554 | Aar40554 [D-Ala132] |
| 879 | 66 | 71.7 | 25 | AAW40575 | [Pro132]r | 952 | 65 | 70.7 | 24 | AAW40420 | Aar40420 [D-Ala132] |
| 880 | 66 | 71.7 | 25 | AAW40439 | [D-Val137 | 953 | 65 | 70.7 | 24 | AAW40543 | Aar40543 [D-Cys130] |
| 881 | 66 | 71.7 | 25 | AAW36957 | ANVP #21. | 954 | 65 | 70.7 | 24 | AAW40466 | Aar40466 [D-Ala145] |
| 882 | 66 | 71.7 | 26 | AAW21585 | ANF (3-28 | 955 | 65 | 70.7 | 24 | AAW40722 | Aar40722 [Leu131]h |
| 883 | 66 | 71.7 | 28 | AAW14469 | Atrial na | 956 | 65 | 70.7 | 24 | AAW40555 | Aar40555 [D-Ala132] |
| 884 | 66 | 71.7 | 28 | AAW93688 | hANP(1-28 | 957 | 65 | 70.7 | 25 | AAW51233 | Sequence |
| 885 | 66 | 71.7 | 28 | AAW51309 | Humah A-t | 958 | 65 | 70.7 | 25 | AAW40530 | Aar40530 [D-Ala132] |
| 886 | 66 | 71.7 | 28 | AAW93118 | Aar93118 NatrIurec | 959 | 65 | 70.7 | 25 | AAW40451 | Aar40451 [D-Ala143] |
| 887 | 66 | 71.7 | 28 | AAW93100 | Aar93100 NatrIurec | 960 | 65 | 70.7 | 25 | AAW40590 | Aar40590 [D-Ala132]h |
| 888 | 66 | 71.7 | 28 | AAW80217 | Aay80217 Humah A-t | 961 | 65 | 70.7 | 25 | AAW40702 | Aar40702 [Ser136]h |
| 889 | 66 | 71.7 | 28 | ADA00786 | Humah hAN | 962 | 65 | 70.7 | 25 | AAW40720 | Aar40720 [Leu131]h |
| 890 | 66 | 71.7 | 28 | ADA00768 | Humah hAN | 963 | 65 | 70.7 | 25 | AAW40464 | Aar40464 [D-Ala145] |
| 891 | 66 | 71.7 | 30 | AAW91296 | Aar91296 Atrial-na | 964 | 65 | 70.7 | 25 | AAW40529 | Aar40529 [D-Ala132] |
| 892 | 66 | 71.7 | 32 | AAW93690 | Thr-Ala-p | 965 | 65 | 70.7 | 25 | AAW40535 | Aar40535 [D-Cys129] |
| 893 | 66 | 71.7 | 32 | AAW51284 | Aaw51284 Human β-C | 966 | 65 | 70.7 | 25 | AAW40553 | Aar40553 [D-Ala132] |
| 894 | 66 | 71.7 | 32 | AAW93102 | Aay93102 NatrIurec | 967 | 65 | 70.7 | 25 | AAW40709 | Aar40709 [Ile137]h |
| 895 | 66 | 71.7 | 32 | AAW80254 | Aay80254 Human B-t | 968 | 65 | 70.7 | 25 | AAW40450 | Aar40450 [D-Ala143] |
| 896 | 66 | 71.7 | 32 | ADA00767 | Humah hAN | 969 | 65 | 70.7 | 25 | AAW40418 | Aar40418 [D-Ala132] |
| 897 | 65.5 | 71.2 | 21 | AAW71373 | Antihyper | 970 | 65 | 70.7 | 25 | AAW40463 | Aar40463 [D-Ala143] |
| 898 | 65.5 | 71.2 | 24 | AAW40436 | [D-Met135 | 971 | 65 | 70.7 | 25 | AAW40721 | Aar40721 [Leu131]h |
| 899 | 65.5 | 71.2 | 24 | AAW40438 | [D-Arg136 | 972 | 65 | 70.7 | 25 | AAW40542 | Aar40542 [D-Cys130] |
| 900 | 65 | 70.7 | 17 | AAW61004 | Aap61004 Atrial na | 973 | 65 | 70.7 | 25 | AAW40703 | Aar40703 [Ser136]h |

974 65 70.7 25 2 AAR40541 [D-CyA130
975 65 70.7 25 2 AAR40417 [D-Ala132
976 65 70.7 25 2 AAR40523 [D-Ala131
977 65 70.7 25 2 AAR42955 Polypepti
978 65 70.7 26 1 AAR71129 Sequence
979 65 70.7 28 1 AAR71696 Atrial na
980 65 70.7 28 1 AAR71697 Atrial na
981 65 70.7 28 6 ADA00821 Human hAN
982 65 70.7 28 6 ADA00816 Human hAN
983 65 70.7 28 8 ADL22337 Natriuret
984 65 70.7 28 8 ADP49288 Natriuret
985 65 70.7 29 2 AAR404814 Peptide a
986 65 70.7 32 1 AAR71463 Sequence
987 65 70.7 32 2 AAW51259 B-type na
988 65 70.7 32 2 AAW51260 Type-B na
989 65 70.7 32 3 AAY80207 Human B-t
990 65 70.7 32 3 AAY80206 Human B-t
991 65 70.7 35 1 AAR60806 Atrial na
992 65 70.7 35 4 AAR91330 Atrial-na
993 65 70.7 45 2 AAW51304 Mouse B-t
994 65 70.7 45 3 AAY80224 Mouse B-t
995 65 70.7 45 4 AAB91334 Brain nat
996 65 70.7 116 1 AAP50102 Atrial na
997 65 70.7 120 2 AAR54670 Mouse bra
998 65 70.7 120 2 AAR54669 Mouse bra
999 65 70.7 121 2 AAR54668 Mouse bra
1000 65 70.7 121 2 AAR54667 Mouse bra

ALIGNMENTS

RESULT 1
ADL22372
ID ADL22372 standard; peptide; 17 AA.

XX ADL22372;

XX 20-MAY-2004 (first entry)

XX Natriuretic peptide, SEQ ID NO 42.

XX natriuretic peptide; NP; blood; cardiant; hypotensive; antiasthmatid;
KW antiinflammatory; vasotropic; antilipaeic; nephrotropic;
KW congestive heart failure; hypertension; asthma; inflammation;
KW erectile dysfunction; hypercholesterolaemia; renal disorder.

XX Synthetic.

XX Key Location/Qualifiers
FH Disulfide-bond 1..17
FT Modified-site 17
FT /note= "C-terminal amide"

XX WO2004011498-A2.

XX 05-FEB-2004.

XX 29-JUL-2003; 2003WO-CA001097.

XX 31-JUL-2002; 2002US-0400199P.

XX 31-JUL-2002; 2002US-0400413P.

XX (CONJ-) CONJUCHEM INC.

XX Bridon DP, Bakis P, Carrette J, Leclaire F, Leger R, Robitaille M;
XX WPI; 2004-143823/14.

XX New natriuretic peptide (NP) derivatives having a NP peptide and a
PT reactive entity, useful for the treatment of congestive heart failure,
PT hypertension, asthma, inflammation, hypercholesterolemia and renal
disorders.

XX Claim 8; SEQ ID NO 42; 108pp; English.
PS The invention relates to a novel long lasting natriuretic peptide (NP)
XX derivative. The NP derivative comprises an NP peptide, having a 33 amino
CC acid sequence, given in the specification, and a reactive entity coupled
CC to the NP peptide, the reactive entity being capable of covalently
CC bonding with a functionality on a blood component. The NP peptide has an
CC extended in vivo half-life. The natriuretic peptide has the following
CC activities: cardiant, hypotensive, antiasthmatid, antinflammatory,
CC vasotropic, antilipaeic, and nephrotropic. The methods and compositions
CC of the present invention are useful for the treatment of congestive heart
CC failure, hypertension, asthma, inflammation, erectile dysfunction,
CC hypercholesterolaemia and renal disorders. This sequence represents a
CC natriuretic peptide of the invention.

XX Sequence 17 AA;

Query Match 100.0%; Score 92; DB 8; Length 17;
Best Local Similarity 100.0%; Pred. No. 8.5e-08; Indels 0; Gaps 0;
Matches 17; Conservative 0; Mismatches 0;

QY 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | |
Db 1 CFGRKMDRISSSSGLGC 17

RESULT 2

ADL22373
ID ADL22373 standard; peptide; 17 AA.

XX ADL22373;

XX 20-MAY-2004 (first entry)

XX Natriuretic peptide, SEQ ID NO 43.

XX natriuretic peptide; NP; blood; cardiant; hypotensive; antiasthmatid;
KW antiinflammatory; vasotropic; antilipaeic; nephrotropic;
KW congestive heart failure; hypertension; asthma; inflammation;
KW erectile dysfunction; hypercholesterolaemia; renal disorder.

XX Synthetic.

XX Key Location/Qualifiers
FH Disulfide-bond 1..17
FT Modified-site 1
FT /note= "Residue modified by MPA-AEEA"
FT Modified-site 17
FT /note= "C-terminal amide"

XX WO2004011498-A2.

XX 05-FEB-2004.

XX 29-JUL-2003; 2003WO-CA001097.

XX 31-JUL-2002; 2002US-0400199P.

XX 31-JUL-2002; 2002US-0400413P.

XX (CONJ-) CONJUCHEM INC.

XX Bridon DP, Bakis P, Carrette J, Leclaire F, Leger R, Robitaille M;
XX WPI; 2004-143823/14.

XX New natriuretic peptide (NP) derivatives having a NP peptide and a
PT reactive entity, useful for the treatment of congestive heart failure,
PT hypertension, asthma, inflammation, hypercholesterolemia and renal
disorders.

XX Claim 9; SEQ ID NO 43; 108pp; English.

CC The invention relates to a novel long lasting natriuretic peptide (NP)
 CC derivative. The NP derivative comprises an NP peptide, having a 33 amino
 CC acid sequence, given in the specification, and a reactive entity coupled
 CC to the NP peptide, the reactive entity being capable of covalently
 CC bonding with a functionality on a blood component. The NP peptide has an
 CC extended in vivo half-life. The natriuretic peptide has the following
 CC activities: cardiant, hypotensive, antiasthmatic, antiinflammatory,
 CC vasotropic, antilipaeamic, and nephrotropic. The methods and compositions
 CC of the present invention are useful for the treatment of congestive heart
 CC failure, hypertension, asthma, inflammation, erectile dysfunction,
 CC hypercholesterolaemia and renal disorders. This sequence represents a
 CC natriuretic peptide of the invention.

XX Sequence 17 AA;

Query Match 100.0%; Score 92; DB 8; Length 17;
 Best Local Similarity 100.0%; Pred. No. 8.5e-08;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 DB 1 CFGRKMDRISSSSGLGC 17

RESULT 3
 AEB12959
 ID AEB12959 standard; peptide; 17 AA.

XX AEB12959;

DT 08-SEP-2005 (first entry)

XX Human brain natriuretic peptide, hBNP-32.

XX protein therapy; antibody engineering; hematopoiesis; immunotherapy;
 KW Cardiant; Antidiabetic; Anorectic; cardiac failure; diabetes; obesity.

XX Homo sapiens.

XX WO2005060642-A2.

XX 07-JUL-2005.

XX 15-DEC-2004; 2004WO-US041946.

XX 15-DEC-2003; 2003US-00737290.

XX (ALEX-) ALEXION PHARM INC.

XX Bowdish KS, Frederickson S, Renshaw M, Orenica C;

XX WPI; 2005-479402/48.

XX New immunoglobulin molecule comprising a region where amino acid residues
 PT corresponding to at least a portion of a complementarity determining
 PT region is replaced with a peptide, for treating congestive heart failure,
 PT diabetes or obesity.

XX Disclosure; SEQ ID NO 172; 152pp; English.

XX The invention relates to an immunoglobulin (Ig) molecule or its fragment
 CC comprising a region where amino acid residues corresponding to at least a
 CC portion of a complementarity determining regions (CDR) is replaced with a
 CC peptide selected from human brain natriuretic protein (hBNP), hBNP
 CC mimetics, glycogen phosphorylase (GLP)-1, GLP-1 mimetics, GLP-2, GLP-2
 CC mimetics, exendin, exendin mimetics, glucagons, glucagon mimetics and
 CC PACAP-38. Also included are a nucleic acid encoding the immunoglobulin
 CC molecule, an expression vector comprising the nucleic acid, a host cell
 CC transformed with the expression vector, producing the host cell under
 CC molecule (or its fragment, comprising the host cell under
 CC conditions suitable for expression of the immunoglobulin or its
 CC fragment), a composition comprising an immunoglobulin (or its fragment)
 CC and a pharmaceutically acceptable carrier, treating congestive heart

CC failure (comprising administering to the subject an immunoglobulin
 CC molecule or fragment comprising a region where amino acid residues
 CC corresponding to at least a portion of a CDR is replaced with a peptide
 CC selected from hBNP and hBNP mimetics), treating diabetes or obesity
 CC (comprising administering to a subject an immunoglobulin molecule or its
 CC fragment comprising a region where amino acid residues corresponding to
 CC at least a portion of a CDR is replaced with a peptide selected from GLP-
 CC 1, GLP-1 mimetics, GLP-2, GLP-2 mimetics, exendin, exendin mimetics,
 CC glucagons, glucagon mimetics and PACAP-38), preserving/improving beta-
 CC cell function (comprising administering to a subject an immunoglobulin
 CC molecule or fragment comprising a region where amino acid residues
 CC corresponding to at least a portion of a CDR is replaced with GLP-1),
 CC inducing endothelial-dependent relaxation of precontracted pulmonary
 CC artery rings (comprising administering to a subject an immunoglobulin
 CC molecule or fragment thereof comprising a region where amino acid
 CC residues corresponding to at least a portion of a CDR is replaced with
 CC GLP-1) and administering to a subject an immunoglobulin molecule or its
 CC fragment (comprising a region where amino acid residues corresponding to
 CC at least a portion of a complementarity determining regions (CDR) is
 CC replaced with a thiazolidinedione derivative), regulating adiponectin
 CC expression (comprising administering to a subject an immunoglobulin
 CC molecule or its fragment comprising a region where amino acid residues
 CC corresponding to at least a portion of a CDR is replaced with a
 CC thiazolidinedione derivative). The immunoglobulin is an anti-tetanus
 CC toxoid antibody (Tt) where the heavy chain CDR2 and/or CDR3 are fully or
 CC partially replaced with a peptide listed above or (as described in the
 CC examples) a Thrombopoietin (TPO) mimetic, erythropoietin (EPO) mimetic
 CC or ANP (atrial natriuretic peptide). The molecule, composition and
 CC methods are useful for treating congestive heart failure, diabetes or
 CC obesity. The present sequence is a peptide from the list above, for
 CC inclusion in an immunoglobulin of the invention.

XX Sequence 17 AA;

Query Match 100.0%; Score 92; DB 9; Length 17;
 Best Local Similarity 100.0%; Pred. No. 8.5e-08;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 DB 1 CFGRKMDRISSSSGLGC 17

RESULT 4

ADL22374
 ID ADL22374 standard; peptide; 18 AA.

XX ADL22374;

XX 20-MAY-2004 (first entry)

XX Natriuretic peptide, SEQ ID No 44.

XX natriuretic peptide; NP; blood; cardiant; hypotensive; antiasthmatic;
 KW antiinflammatory; vasotropic; antilipaeamic; nephrotropic;
 KW congestive heart failure; hypertension; asthma; inflammation;
 KW erectile dysfunction; hypercholesterolaemia; renal disorder.

XX Synthetic.

XX Key Location/Qualifiers
 FH Disulfide-bond 1. .17
 FT Modified-site 18
 FT /note= "Residue modified by MPA-AEEA and C-terminal
 FT amide"

XX WO2004011498-A2.

XX 05-FEB-2004.

XX 29-JUL-2003; 2003WO-CA001097.

XX 31-JUL-2002; 2002US-0400199P.

PR 31-JUL-2002; 2002US-0400413P.
 XX (CONJ-) CONJUCHEM INC.
 XX
 PA Bridon DP, Bakis P, Carrette J, Leclaire F, Leger R, Robitaille M;
 XX WPI; 2004-143823/14.
 XX
 PI New natriuretic peptide (NP) derivatives having a NP peptide and a
 XX reactive entity, useful for the treatment of congestive heart failure,
 XX hypertension, asthma, inflammation, hypercholesterolemia and renal
 XX disorders.
 XX
 PT Claim 9; SEQ ID NO 44; 108pp; English.
 XX
 PS The invention relates to a novel long lasting natriuretic peptide (NP)
 XX derivative. The NP derivative comprises an NP peptide, having a 33 amino
 XX acid sequence, given in the specification, and a reactive entity coupled
 XX to the NP peptide, the reactive entity being capable of covalently
 XX bonding with a functionality on a blood component. The NP peptide has an
 XX extended in vivo half-life. The natriuretic peptide has the following
 XX activities: cardiant, hypotensive, antiasthmatic, antiinflammatory,
 XX vasotropic, antilipemic, and nephrotropic. The methods and compositions
 XX of the present invention are useful for the treatment of congestive heart
 XX failure, hypertension, asthma, inflammation, erectile dysfunction,
 XX hypercholesterolemia and renal disorders. This sequence represents a
 XX natriuretic peptide of the invention.
 XX
 SQ Sequence 18 AA;
 Query Match 100.0%; Score 92; DB 8; Length 18;
 Best Local Similarity 100.0%; Pred. No. 9e-08;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSGLGC 17
 DB 1 CFGRKMDRISSSGLGC 17
 RESULT 5
 ADL22365
 ID ADL22365 standard; peptide; 23 AA.
 XX
 AC ADL22365;
 XX
 DT 20-MAY-2004 (first entry)
 XX
 DE Natriuretic peptide, SEQ ID No 35.
 XX
 KW natriuretic peptide; NP; blood; cardiant; hypotensive; antiasthmatid;
 KW antiinflammatory; vasotropic; antilipemic; nephrotropic;
 KW congestive heart failure; hypertension; asthma; inflammation;
 KW erectile dysfunction; hypercholesterolaemia; renal disorder.
 XX
 OS Synthetic.
 XX
 XX Key Location/Qualifiers
 FH Disulfide-bond 1. .17
 FT Modified-site 2
 FT /note= "Residue modified by N-alpha-methyl"
 FT Modified-site 23
 FT /note= "C-terminal amide"
 XX
 XX WO2004011498-A2.
 XX
 PD 05-FEB-2004.
 XX
 PF 29-JUL-2003; 2003WO-CA001097.
 XX
 XX 31-JUL-2002; 2002US-0400199P.
 PR 31-JUL-2002; 2002US-0400413P.
 XX
 PA (CONJ-) CONJUCHEM INC.

XX Bridon DP, Bakis P, Carrette J, Leclaire F, Leger R, Robitaille M;
 XX WPI; 2004-143823/14.
 XX
 PI New natriuretic peptide (NP) derivatives having a NP peptide and a
 XX reactive entity, useful for the treatment of congestive heart failure,
 XX hypertension, asthma, inflammation, hypercholesterolemia and renal
 XX disorders.
 XX
 PT Claim 9; SEQ ID NO 35; 108pp; English.
 XX
 PS The invention relates to a novel long lasting natriuretic peptide (NP)
 XX derivative. The NP derivative comprises an NP peptide, having a 33 amino
 XX acid sequence, given in the specification, and a reactive entity coupled
 XX to the NP peptide, the reactive entity being capable of covalently
 XX bonding with a functionality on a blood component. The NP peptide has an
 XX extended in vivo half-life. The natriuretic peptide has the following
 XX activities: cardiant, hypotensive, antiasthmatic, antiinflammatory,
 XX vasotropic, antilipemic, and nephrotropic. The methods and compositions
 XX of the present invention are useful for the treatment of congestive heart
 XX failure, hypertension, asthma, inflammation, erectile dysfunction,
 XX hypercholesterolaemia and renal disorders. This sequence represents a
 XX natriuretic peptide of the invention.
 XX
 SQ Sequence 23 AA;
 Query Match 100.0%; Score 92; DB 8; Length 23;
 Best Local Similarity 100.0%; Pred. No. 1.2e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSGLGC 17
 DB 1 CFGRKMDRISSSGLGC 17
 RESULT 6
 ADL22362
 ID ADL22362 standard; peptide; 23 AA.
 XX
 AC ADL22362;
 XX
 DT 20-MAY-2004 (first entry)
 XX
 DE Natriuretic peptide, SEQ ID No 32.
 XX
 KW natriuretic peptide; NP; blood; cardiant; hypotensive; antiasthmatic;
 KW antiinflammatory; vasotropic; antilipemic; nephrotropic;
 KW congestive heart failure; hypertension; asthma; inflammation;
 KW erectile dysfunction; hypercholesterolaemia; renal disorder.
 XX
 OS Synthetic.
 XX
 XX Key Location/Qualifiers
 FH Disulfide-bond 1. .17
 FT Modified-site 23
 FT /note= "C-terminal amide"
 XX
 XX WO2004011498-A2.
 XX
 PD 05-FEB-2004.
 XX
 PF 29-JUL-2003; 2003WO-CA001097.
 XX
 XX 31-JUL-2002; 2002US-0400199P.
 PR 31-JUL-2002; 2002US-0400413P.
 XX
 PA (CONJ-) CONJUCHEM INC.
 XX
 XX Bridon DP, Bakis P, Carrette J, Leclaire F, Leger R, Robitaille M;
 XX WPI; 2004-143823/14.

PT New natriuretic peptide (NP) derivatives having a NP peptide and a
PT reactive entity, useful for the treatment of congestive heart failure,
PT hypertension, asthma, inflammation, hypercholesterolemia and renal
PT disorders.
XX
XX Claim 9; SEQ ID NO 32; 108pp; English.
XX
XX The invention relates to a novel long lasting natriuretic peptide (NP)
XX derivative. The NP derivative comprises an NP peptide, having a 33 amino
XX acid sequence, given in the specification, and a reactive entity coupled
XX to the NP peptide, the reactive entity being capable of covalently
XX bonding with a functionality on a blood component. The NP peptide has an
XX extended in vivo half-life. The natriuretic peptide has the following
XX activities: cardiant, hypotensive, antiasthmatic, antiinflammatory,
XX vasotropic, antilipaeamic, and nephrotropic. The methods and compositions
XX of the present invention are useful for the treatment of congestive heart
XX failure, hypertension, asthma, inflammation, erectile dysfunction,
XX hypercholesterolaemia and renal disorders. This sequence represents a
XX natriuretic peptide of the invention.
XX
XX Sequence 23 AA;
SQ
Query Match 100.0%; Score 92; DB 8; Length 23;
Best Local Similarity 100.0%; Pred. NO. 1.2e-07;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 CFGRKMDRISSSSGLGC 17
DB 1 CFGRKMDRISSSSGLGC 17

RESULT 7
ADL22364
ID ADL22364 standard; peptide; 23 AA.
XX
XX AC ADL22364;
XX
XX DT 20-MAY-2004 (first entry)
XX
XX DE Natriuretic peptide, SEQ ID NO 34.
XX
XX KW natriuretic peptide; NP; blood; cardiant; hypotensive; antiasthmatic;
XX antiinflammatory; vasotropic; antilipaeamic; nephrotropic;
XX congestive heart failure; hypertension; asthma; inflammation;
XX erectile dysfunction; hypercholesterolaemia; renal disorder.
XX
XX OS Synthetic.
XX
XX FH Key Location/Qualifiers
XX FT Disulfide-bond 1..17
XX FT Modified-site 2 /note= "Residue modified by N-alpha-methyl"
XX FT Modified-site 23 /note= "C-terminal amide"
XX
XX WO2004011498-A2.
XX
XX PD 05-FEB-2004.
XX
XX PF 29-JUL-2003; 2003WO-CA001097.
XX
XX PR 31-JUL-2002; 2002US-0400199P.
XX PR 31-JUL-2002; 2002US-0400413P.
XX
XX PA (CONJ-) CONJUCHEM INC.
XX
XX PI Bridon DP, Bakis P, Carrette J, Leclaire F, Leger R, Robitaille M;
XX WPI; 2004-143823/14.
XX
XX PT New natriuretic peptide (NP) derivatives having a NP peptide and a
XX reactive entity, useful for the treatment of congestive heart failure,
XX hypertension, asthma, inflammation, hypercholesterolemia and renal
XX disorders.

PT disorders.
XX
XX Claim 8; SEQ ID NO 34; 108pp; English.
XX
XX The invention relates to a novel long lasting natriuretic peptide (NP)
XX derivative. The NP derivative comprises an NP peptide, having a 33 amino
XX acid sequence, given in the specification, and a reactive entity coupled
XX to the NP peptide, the reactive entity being capable of covalently
XX bonding with a functionality on a blood component. The NP peptide has an
XX extended in vivo half-life. The natriuretic peptide has the following
XX activities: cardiant, hypotensive, antiasthmatic, antiinflammatory,
XX vasotropic, antilipaeamic, and nephrotropic. The methods and compositions
XX of the present invention are useful for the treatment of congestive heart
XX failure, hypertension, asthma, inflammation, erectile dysfunction,
XX hypercholesterolaemia and renal disorders. This sequence represents a
XX natriuretic peptide of the invention.
XX
XX Sequence 23 AA;
SQ
Query Match 100.0%; Score 92; DB 8; Length 23;
Best Local Similarity 100.0%; Pred. NO. 1.2e-07;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 CFGRKMDRISSSSGLGC 17
DB 1 CFGRKMDRISSSSGLGC 17

RESULT 8
ADL22361
ID ADL22361 standard; peptide; 23 AA.
XX
XX AC ADL22361;
XX
XX DT 20-MAY-2004 (first entry)
XX
XX DE Natriuretic peptide, SEQ ID NO 31.
XX
XX KW natriuretic peptide; NP; blood; cardiant; hypotensive; antiasthmatic;
XX antiinflammatory; vasotropic; antilipaeamic; nephrotropic;
XX congestive heart failure; hypertension; asthma; inflammation;
XX erectile dysfunction; hypercholesterolaemia; renal disorder.
XX
XX OS Synthetic.
XX
XX FH Key Location/Qualifiers
XX FT Disulfide-bond 1..17
XX FT Modified-site 23 /note= "C-terminal amide"
XX
XX WO2004011498-A2.
XX
XX PD 05-FEB-2004.
XX
XX PF 29-JUL-2003; 2003WO-CA001097.
XX
XX PR 31-JUL-2002; 2002US-0400199P.
XX PR 31-JUL-2002; 2002US-0400413P.
XX
XX PA (CONJ-) CONJUCHEM INC.
XX
XX PI Bridon DP, Bakis P, Carrette J, Leclaire F, Leger R, Robitaille M;
XX WPI; 2004-143823/14.
XX
XX PT New natriuretic peptide (NP) derivatives having a NP peptide and a
XX reactive entity, useful for the treatment of congestive heart failure,
XX hypertension, asthma, inflammation, hypercholesterolemia and renal
XX disorders.
XX
XX PS Claim 8; SEQ ID NO 31; 108pp; English.
XX
XX The invention relates to a novel long lasting natriuretic peptide (NP)

CC derivative. The NP derivative comprises an NP peptide, having a 33 amino
 CC acid sequence, given in the specification, and a reactive entity coupled
 CC to the NP peptide, the reactive entity being capable of covalently
 CC bonding with a functionality on a blood component. The NP peptide has an
 CC extended in vivo half-life. The natriuretic peptide has the following
 CC activities: cardiant, hypotensive, antiasthmatic, antiinflammatory,
 CC vasotropic, antilipaeamic, and nephrotropic. The methods and compositions
 CC of the present invention are useful for the treatment of congestive heart
 CC failure, hypertension, asthma, inflammation, erectile dysfunction,
 CC hypercholesterolaemia and renal disorders. This sequence represents a
 CC natriuretic peptide of the invention.

XX Sequence 23 AA;

Query Match 100.0%; Score 92; DB 8; Length 23;
 Best Local Similarity 100.0%; Pred. No. 1.2e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CFGRKMDRISSSSGLGC 17
 |||||
 Db 1 CFGRKMDRISSSSGLGC 17
 |||||

RESULT 9

AAB46799
 ID AAB46799 standard; peptide; 24 AA.

XX AAB46799;

XX 19-APR-2001 (first entry)

XX Human brain natriuretic peptide.

XX Brain natriuretic peptide; human; hypotensive; cardiant; hypertension;
 KW circulatory disease; edematous disease; cardiac failure; renal failure;
 KW smooth muscle relaxant.

XX Homo sapiens.

XX JP2000319299-A.

XX 21-NOV-2000.

XX 10-MAR-1989; 2000JP-00103212.

XX 10-MAR-1989; 99JP-00121666.

XX (SHIO) SHIONOGI & CO LTD.
 PA (MATSU) MATSUO H.

XX WPI; 2001-184997/19.

XX New brain natriuretic peptide (BNP) having a cysteine bridge is useful for
 PT the treatment of circulatory diseases.

XX Claim 1; Page 2; 6pp; Japanese.

XX This invention describes a novel human brain natriuretic peptide (BNP)
 CC (I) having a cysteine bridge. The peptide of the invention has
 CC hypotensive, cardiant and smooth muscle relaxant activity. The peptide of
 CC the invention can be used for the treatment of circulatory diseases
 CC including hypertension, edematous diseases, and cardiac and renal failure

XX Sequence 24 AA;

Query Match 100.0%; Score 92; DB 4; Length 24;
 Best Local Similarity 100.0%; Pred. No. 1.2e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CFGRKMDRISSSSGLGC 17
 |||||
 Db 2 CFGRKMDRISSSSGLGC 18
 |||||

RESULT 10

ADL22366
 ID ADL22366 standard; peptide; 24 AA.

XX ADL22366;

XX 20-MAY-2004 (first entry)

XX Natriuretic peptide, SEQ ID No 36.

XX natriuretic peptide; NP; blood; cardiant; hypotensive; antiasthmatic;
 KW antiinflammatory; vasotropic; antilipaeamic; nephrotropic;
 KW congestive heart failure; hypertension; asthma; inflammation;
 KW erectile dysfunction; hypercholesterolaemia; renal disorder.

XX Synthetic.

XX Key Location/Qualifiers

FT Disulfide-bond 1. 17

FT Modified-site 2 /note= "Residue modified by N-alpha-methyl"

FT Modified-site 24 /note= "Residue modified by MPA-ABEA and C-terminal

FT amide"

XX WO2004011498-A2.

XX 05-FEB-2004.

XX 29-JUL-2003; 2003WO-CA001097.

XX 31-JUL-2002; 2002US-0400199P.

XX 31-JUL-2002; 2002US-0400413P.

XX (CONJ-) CONJUCHEM INC.

XX Bridon DP, Bakis P, Carrette J, Leclaire F, Leger R, Robitaille M;

XX WPI; 2004-143823/14.

XX New natriuretic peptide (NP) derivatives having a NP peptide and a
 PT reactive entity, useful for the treatment of congestive heart failure,
 PT hypertension, asthma, inflammation, hypercholesterolemia and renal
 PT disorders.

XX Claim 9; SEQ ID NO 36; 108pp; English.

XX The invention relates to a novel long lasting natriuretic peptide (NP)
 CC derivative. The NP derivative comprises an NP peptide, having a 33 amino
 CC acid sequence, given in the specification, and a reactive entity coupled
 CC to the NP peptide, the reactive entity being capable of covalently
 CC bonding with a functionality on a blood component. The NP peptide has an
 CC extended in vivo half-life. The natriuretic peptide has the following
 CC activities: cardiant, hypotensive, antiasthmatic, antiinflammatory,
 CC vasotropic, antilipaeamic, and nephrotropic. The methods and compositions
 CC of the present invention are useful for the treatment of congestive heart
 CC failure, hypertension, asthma, inflammation, erectile dysfunction, a
 CC hypercholesterolaemia and renal disorders. This sequence represents a
 CC natriuretic peptide of the invention.

XX Sequence 24 AA;

Query Match 100.0%; Score 92; DB 8; Length 24;
 Best Local Similarity 100.0%; Pred. No. 1.2e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CFGRKMDRISSSSGLGC 17
 |||||

Db 1 CFGRKMDRISSSSGLGC 17
 |||||

RESULT 11

ADL22363
 ID ADL22363 standard; peptide; 24 AA.
 AC ADL22363;
 XX
 XX
 DT 20-MAY-2004 (first entry)
 DE Natriuretic peptide, SEQ ID No 33.
 KW natriuretic peptide; NP; blood; cardiatic; hypotensive; antiasthmatic;
 KW antiinflammatory; vasotropic; antilipaeamic; nephrotropic;
 KW congestive heart failure; hypertension; asthma; inflammation;
 KW erectile dysfunction; hypercholesterolaemia; renal disorder.
 XX
 OS Synthetic.
 XX
 FH Key Location/Qualifiers
 FT Disulfide-bond 1. .17
 FT Modified-site 24
 FT /note= "Residue modified by MPA-AEEA and C-terminal
 FT amide"
 XX
 XX WO2004011498-A2.
 XX
 XX 05-FEB-2004.
 XX
 XX 29-JUL-2003; 2003WO-CA001097.
 XX
 XX 31-JUL-2002; 2002US-0400199P.
 XX 31-JUL-2002; 2002US-0400413P.
 XX
 XX (CONJ-) CONJUCHEM INC.
 XX
 XX Bridon DP, Bakis P, Carrette J, Leclaire F, Leger R, Robitaille M;
 XX WPI; 2004-143823/14.
 XX
 XX New natriuretic peptide (NP) derivatives having a NP peptide and a
 PT reactive entity, useful for the treatment of congestive heart failure,
 PT hypertension, asthma, inflammation, hypercholesterolemia and renal
 PT disorders.
 XX
 PS Claim 9; SEQ ID NO 33; 108pp; English.
 XX
 CC The invention relates to a novel long lasting natriuretic peptide (NP)
 CC derivative. The NP derivative comprises an NP peptide, having a 33 amino
 CC acid sequence, given in the specification, and a reactive entity coupled
 CC to the NP peptide, the reactive entity being capable of covalently
 CC bonding with a functionality on a blood component. The NP peptide has an
 CC activities: cardiatic, hypotensive, antiasthmatic, antiinflammatory,
 CC vasotropic, antilipaeamic, and nephrotropic. The methods and compositions
 CC of the present invention are useful for the treatment of congestive heart
 CC failure, hypertension, asthma, inflammation, erectile dysfunction, a
 CC hypercholesterolaemia and renal disorders. This sequence represents a
 CC natriuretic peptide of the invention.
 XX
 SQ Sequence 24 AA;
 Query Match 100.0%; Score 92; DB 8; Length 24;
 Best Local Similarity 100.0%; Pred. No. 1.2e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 DB 1 CFGRKMDRISSSSGLGC 17
 RESULT 12
 ADL22352
 ID ADL22352 standard; peptide; 25 AA.
 XX
 AC ADL22352;

XX
 DT 20-MAY-2004 (first entry)
 XX
 DE Natriuretic peptide, SEQ ID No 22.
 XX
 KW natriuretic peptide; NP; blood; cardiatic; hypotensive; antiasthmatic;
 KW antiinflammatory; vasotropic; antilipaeamic; nephrotropic;
 KW congestive heart failure; hypertension; asthma; inflammation;
 KW erectile dysfunction; hypercholesterolaemia; renal disorder.
 XX
 OS Synthetic.
 XX
 FH Key Location/Qualifiers
 FT Disulfide-bond 3. .19
 FT Modified-site 25
 FT /note= "C-terminal amide"
 XX
 XX WO2004011498-A2.
 XX
 XX 05-FEB-2004.
 XX
 XX 29-JUL-2003; 2003WO-CA001097.
 XX
 XX 31-JUL-2002; 2002US-0400199P.
 XX 31-JUL-2002; 2002US-0400413P.
 XX
 XX (CONJ-) CONJUCHEM INC.
 XX
 XX Bridon DP, Bakis P, Carrette J, Leclaire F, Leger R, Robitaille M;
 XX WPI; 2004-143823/14.
 XX
 XX New natriuretic peptide (NP) derivatives having a NP peptide and a
 PT reactive entity, useful for the treatment of congestive heart failure,
 PT hypertension, asthma, inflammation, hypercholesterolemia and renal
 PT disorders.
 XX
 PS Claim 8; SEQ ID NO 22; 108pp; English.
 XX
 CC The invention relates to a novel long lasting natriuretic peptide (NP)
 CC derivative. The NP derivative comprises an NP peptide, having a 33 amino
 CC acid sequence, given in the specification, and a reactive entity coupled
 CC to the NP peptide, the reactive entity being capable of covalently
 CC bonding with a functionality on a blood component. The NP peptide has an
 CC activities: cardiatic, hypotensive, antiasthmatic, antiinflammatory,
 CC vasotropic, antilipaeamic, and nephrotropic. The methods and compositions
 CC of the present invention are useful for the treatment of congestive heart
 CC failure, hypertension, asthma, inflammation, erectile dysfunction, a
 CC hypercholesterolaemia and renal disorders. This sequence represents a
 CC natriuretic peptide of the invention.
 XX
 SQ Sequence 25 AA;
 Query Match 100.0%; Score 92; DB 8; Length 25;
 Best Local Similarity 100.0%; Pred. No. 1.3e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 DB 3 CFGRKMDRISSSSGLGC 19
 RESULT 13
 AAY67295
 ID AAY67295 standard; peptide; 26 AA.
 XX
 AC AAY67295;
 XX
 XX 05-APR-2000 (first entry)
 XX
 DE Human brain natriuretic peptide (BNP) fragment 1.
 XX

KW Brain natriuretic peptide; BNP; smooth muscle relaxant; hypertension;
 KW sodium diuretic activity; congestive heart failure; renal failure;
 XX oedema.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Misc-difference 1..3
 FT /note= "Optionally replaced by a Hydrogen atom"
 FT Disulfide-bond 4..20
 XX
 XX JP11343299-A.
 XX
 XX 14-DEC-1999.
 XX
 XX 10-MAR-1989; 99JP-00121666.
 XX
 XX 10-MAR-1989; 98JP-00131506.
 XX (SHIO) SHIONOGI & CO LTD.
 XX (MATS/) MATSUO T.
 XX
 XX WPI; 2000-102193/09.
 XX
 XX New peptides are smooth muscle relaxants and sodium diuretics - used to
 PT treat cardiac, renal, hepatic and pulmonary edema, hypertension,
 PT congestive heart failure, renal failure and hypertension.
 XX
 PS Claim 1; Page 2; 5pp; Japanese.
 CC This is a human brain natriuretic peptide (BNP) sequence. The peptide is
 CC a safe smooth muscle relaxant with sodium diuretic activity. The peptide
 CC can be used in the treatment of cardiac, renal, hepatic and pulmonary
 CC oedema, hypertension, congestive heart failure and acute and chronic
 CC renal failure
 XX
 XX Sequence 26 AA;
 SQ
 Query Match 100.0%; Score 92; DB 3; Length 26;
 Best Local Similarity 100.0%; Pred. No. 1.3e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 Db 4 CFGRKMDRISSSSGLGC 20
 RESULT 14
 ABU63216
 ID ABU63216 standard; peptide; 26 AA.
 XX
 AC ABU63216;
 XX
 XX 15-OCT-2003 (first entry)
 XX
 XX N-terminus of human brain natriuretic peptide (BNP).
 XX
 XX Natriuretic; renin-suppressing; diuretic; vasodilator; heart failure;
 KW cardiovascular disorder; congestive heart failure; hypertension;
 KW acute kidney failure; chronic kidney failure; liver cirrhosis;
 KW nephrotic syndrome; oedematous state; cardiant; BNP; human;
 KW brain natriuretic peptide.
 XX
 OS Homo sapiens.
 XX
 XX US2003069186-A1.
 XX
 XX 10-APR-2003.
 XX
 XX 26-MAR-2002; 2002US-00106806.
 XX
 XX 17-DEC-1999; 99US-00466268.
 XX

PA (BURN/) BURNETT J C.
 PA (LISY/) LISY O.
 XX
 XX Burnett JC, Lisby O;
 XX WPI; 2003-576433/54.
 XX
 XX Novel peptide compound useful for treating or preventing cardiovascular
 PT disorders e.g. congestive heart failure, has natriuretic, renin-
 PT suppressing, diuretic and/or vasodilator activity in mammals.
 XX
 XX Claim 4; Page 2; 43pp; English.
 XX
 XX The present invention relates to chimeric peptides having natriuretic,
 CC renin-suppressing, diuretic and/or vasodilator activity in mammals. The
 CC peptides of the invention are useful for treating heart failure in a
 CC mammal e.g. human, rat, mouse, canine, bovine, equine, ovine, caprine or
 CC feline. They are useful for treating and preventing cardiovascular
 CC disorders e.g. congestive heart failure, acute or chronic kidney failure,
 CC hypertension, cirrhosis of liver, nephrotic syndrome and other oedematous
 CC states. The present sequence represents the N-terminus of human brain
 CC natriuretic peptide (BNP)
 XX
 XX Sequence 26 AA;
 SQ
 Query Match 100.0%; Score 92; DB 6; Length 26;
 Best Local Similarity 100.0%; Pred. No. 1.3e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 Db 10 CFGRKMDRISSSSGLGC 26
 RESULT 15
 ADL22354
 ID ADL22354 standard; peptide; 26 AA.
 XX
 XX ADL22354;
 XX
 XX 20-MAY-2004 (first entry)
 XX
 XX Natriuretic peptide, SEQ ID No 24.
 XX
 XX natriuretic peptide; NP; blood; cardiant; hypotensive; antiasthmatic;
 KW antiinflammatory; vasotropic; antilipaeamic; nephrotropic;
 KW congestive heart failure; hypertension; asthma; inflammation;
 KW erectile dysfunction; hypercholesterolaemia; renal disorder.
 XX
 XX Synthetic.
 OS
 XX
 XX Key Location/Qualifiers
 FT Disulfide-bond 3..19
 FT Modified-site 26
 FT /note= "Residue modified by MPA-AEEA and C-terminal
 FT amide"
 XX
 XX WO2004011498-A2.
 XX
 XX 05-FEB-2004.
 XX
 XX 29-JUL-2003; 2003WO-CA001097.
 XX
 XX 31-JUL-2002; 2002US-0400199P.
 XX 31-JUL-2002; 2002US-0400413P.
 XX
 XX (CONJ-) CONJUCHEM INC.
 XX
 XX Bridon DP, Bakis P, Carrette J, Leclaire F, Leger R, Robitaille M;
 XX WPI; 2004-143823/14.
 XX
 XX New natriuretic peptide (NP) derivatives having a NP peptide and a
 PT

PT reactive entity, useful for the treatment of congestive heart failure,
PT hypertension, asthma, inflammation, hypercholesterolemia and renal
PT disorders.
XX
XX Claim 9; SEQ ID NO 24; 108pp; English.
XX
XX The invention relates to a novel long lasting natriuretic peptide (NP)
XX derivative. The NP derivative comprises an NP peptide, having a 33 amino
XX acid sequence, given in the specification, and a reactive entity coupled
XX to the NP peptide, the reactive entity being capable of covalently
XX bonding with a functionality on a blood component. The NP peptide has an
XX extended in vivo half-life. The natriuretic peptide has the following
XX activities: cardiant, hypotensive, antistatic, antiinflammatory, and
XX vasotropic, antilipemic, and nephrotropic. The methods and compositions
XX of the present invention are useful for the treatment of congestive heart
XX failure, hypertension, asthma, inflammation, erectile dysfunction,
XX hypercholesterolemia and renal disorders. This sequence represents a
XX natriuretic peptide of the invention.
XX
XX Sequence 26 AA;

```
Query Match      100.0%; Score 92; DB 8; Length 26;
Best Local Similarity 100.0%; Pred. No. 1.3e-07;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

Qy 1 CFGRKMDRISSSSLGC 17
|||
Db 3 CFGRKMDRISSSSLGC 19

RESULT 16
ADP49303
ID ADP49303 standard; peptide; 26 AA.

AC ADP49303;

DT 26-AUG-2011

DE Natriuretic compound polyp

KW
cardiant; hypotensive; natriuretic coXX
XX
PRINTED BY THE GOVERNMENT OF INDIA

US XX
synthetic.

| FH | key | Location/Qualifiers |
|----|-------------------|---------------------|
| FT | Misc-difference 3 | |

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FI  /note= "xaaa=any amino acid except Lys
XX

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FN 0040478 / I-AZ.
XX

FD
XX
10-JUN-2004.

XX
PF 12-NOV-2003; 2003WU-US03/9996.

FR 26-NOV-2002; 200205-0429151P.
XX

PA : (NOBE-) NOBEX CORP.
XX

PI James KU, Radhakrishnan B, Malkar NB, Miller MA, Ekwuribe NN, XX

DR WPI; 2004-450218/42.
XX

PT heart failure, comprises natriuretic compound and at least one modifying PT moiety.

PS Example 25; Page 77; 125pp; English.

The present invention relates to a natriuretic compound, which comprises a natriuretic compound containing a natriuretic molecule NPR-A (natriuretic peptide receptor-A) binding site and at least one modifying moiety conjugation site, and at least one modifying moiety attached to

CC the modifying moiety conjugation site. The conjugates are used for the
CC treatment of a condition involving an excess level of extracellular fluid
CC e.g. chronic or acute congestive heart failure and hypertension. The
CC present sequence is a peptide shown in the invention.
XX
XX Sequence 26 AA;
SQ

| | | | | |
|-----------------------|---------|--------------------|-------|------------|
| Query Match | 100.0%; | Score 92; | DB 8; | Length 26; |
| Best Local Similarity | 100.0%; | Pred. No. 1.3e-07; | | |

Qy 1 CFGRKMDRISSSSGLGC 17
|||
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 17

ADP49273
ID ADP49273 standard; peptide; 26 AA.

AA
AC
ADP49273;

DT 26-AUG-2004 (first entry)

XX DE Natriuretic compound polypeptide #16.

XX
KW
KW
cardiant; hypotensive; natriuretic compound; heart failure; hypertension; extracellular fluid.

AA Synthetic.

AA
PN
WO2004047871-A2.

10-JUN-2004.

XX 12-NOV-2003; 2003WO-US037996.
PF

XX
PR 26-NOV-2002: 2002US-0429151P.

XX PA (NOBE-) NOBEX CORP.

PI James KD. Radhakrishnan B. Malkar NB. Miller MA. Ekwuribe NN: XX

XX
DR WPT: 2004-450218/42.

XX Natriuretic compound conjugate useful in the treatment of e.g. congestive
PT heart failure, comprises natriuretic compound and at least one modifying
PT moiety.

XX
PS
Claim 18; Page 93; 125pp; English.

The present invention relates to a natriuretic compound, which comprises a natriuretic compound containing a natriuretic molecule NPR-A (natriuretic peptide receptor-A) binding site and at least one modifying moiety conjugation site, and at least one modifying moiety attached to the modifying moiety conjugation site. The conjugates are used for the treatment of a condition involving an excess level of extracellular fluid e.g. chronic or acute congestive heart failure and hypertension. The present sequence is a peptide shown in the invention.

Sequence 26 AA:

| | | | | |
|-----------------------|---------|--------------------|-------|------------|
| Query Match | 100.0%; | Score 92; | DB 8; | Length 26; |
| Best Local Similarity | 100.0%; | Pred. No. 1.3e-07; | | |

Qy 1 CFGRKMDRISSSSGLGC 17
|||
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 18

RESULT: In
ADW45317

ID ADW45317 standard; peptide; 26 AA.
 XX AC ADW45317;
 XX DT 07-APR-2005 (first entry)
 XX DE Human fusion-related BNP (brain natriuretic peptide) peptide - SEQ 321.
 XX KW fusion protein; anti-HIV; gastrointestinal-gen.; antidiabetic; anorectic;
 KW nephrotropic; cardiant; cytostatic; neuroprotective; immunosuppressive;
 KW immune disorder; hematological disease; hyperproliferative disorder;
 KW renal disease; cardiovascular disease; cardiovascular-gen.;
 KW respiratory disorder; angiogenesis disorder; neurological disease;
 KW wound healing; vulnary; endocrine disease; reproductive disorder;
 KW gynecological; infectious disease; antimicrobial;
 KW gastrointestinal disease; gene therapy; BNP; brain natriuretic peptide.
 XX KW Homo sapiens.
 XX OS WO2005003296-A2.
 XX PN 13-JAN-2005.
 XX PD 20-JAN-2004; 2004WO-US001369.
 XX PF 22-JAN-2003; 2003US-0441305P.
 XX PR 11-MAR-2003; 2003US-0453201P.
 XX PR 02-MAY-2003; 2003US-0467222P.
 XX PR 23-MAY-2003; 2003US-0472816P.
 XX PR 06-JUN-2003; 2003US-0476267P.
 XX PR 24-SEP-2003; 2003US-0505172P.
 XX PR 30-SEP-2003; 2003US-0506746P.
 XX PA (HUMA-) HUMAN GENOME SCI INC.
 XX PI Haseltine WA, Rosen CA;
 XX WPI; 2005-091786/10.
 XX N-PSDB; ADW45143.
 XX New albumin fusion protein for diagnosing, treating or preventing
 PT diseases such as HIV/AIDS, diabetes, obesity, heart disease or immune
 PT disorders comprises a therapeutic protein (e.g. CD4W33, GUP-2 or PACAP-
 PT 27) and an albumin.
 XX Example 4; SEQ ID NO 321; 884pp; English.
 XX The invention relates to a novel albumin fusion protein comprising a
 CC therapeutic protein as listed in the specification in Table 1 and an
 CC albumin comprising a sequence of SEQ ID NO: 1, or a fragment or variant
 CC of SEQ ID NO: 1, where the fragment or variant has albumin activity and
 CC where the albumin activity is the ability to prolong the shelf life of
 CC the therapeutic protein compared to the shelf-life of the therapeutic
 CC protein in an unfused state. Human serum albumin (HSA, HA) is responsible
 CC for a significant proportion of the osmotic pressure of serum and also
 CC functions as a carrier of endogenous and exogenous ligands. The fusion
 CC protein of the invention demonstrates anti-HIV, gastrointestinal-gen.,
 CC antidiabetic, anorectic, cardiant and immunosuppressive activities. The
 CC fusion protein may be useful for diagnosing, treating, preventing or
 CC ameliorating diseases, such as immune disorders, blood disorders,
 CC hyperproliferative disorders, renal disorders, cardiovascular disorders,
 CC respiratory disorders, angiogenesis-related disorders, neurological
 CC disorders, wound healing disorders, endocrine disorders, reproductive
 CC disorders, infectious disorders and gastrointestinal disorders, possibly
 CC with the use of gene therapy techniques. The current sequence is that of
 CC the human fusion-related BNP (brain natriuretic peptide) peptide - SEQ
 CC 321 of the invention.
 XX Sequence 26 AA;
 SQ Query Match 100.0%; Score 92; DB 9; Length 26;
 Best Local Similarity 100.0%; Pred. No. 1.3e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRMDRISSSSLGDC 17
 DB 10 CFGRMDRISSSSLGDC 26
 RESULT 19
 ADY62994
 ID ADY62994 standard; peptide; 26 AA.
 XX AC ADY62994;
 XX DT 02-JUN-2005 (first entry)
 XX DE Human brain natriuretic peptide (BNP) N-terminus SEQ ID NO:7.
 XX KW natriuretic peptide; diuretic peptide; vasodilator; cardiant;
 KW nephrotropic; hypotensive; hepatotropic; antiinflammatory;
 KW cardiac failure; renal failure; hypertension; liver cirrhosis;
 KW nephrotic syndrome; edema; cardiovascular disease.
 XX OS Homo sapiens.
 XX FH Key Location/Qualifiers
 FT Disulfide-bond 10. .26
 XX US2005059600-A1.
 XX PD 17-MAR-2005.
 XX PF 23-SEP-2004; 2004US-00947730.
 XX PR 17-DEC-1999; 99US-00466268.
 XX PR 26-MAR-2002; 2002US-00106806.
 XX PA (MAYO-) MAYO FOUND MEDICAL EDUCATION & RES.
 XX PI Burnett JC, Lisy O;
 XX WPI; 2005-222252/23.
 XX New peptides of Dendroaspis with vasodilatory, natriuretic, diuretic or
 PT renin suppression activity useful to treat heart failure, congestive
 PT heart failure, acute or chronic kidney failure, hypertension, cirrhosis
 PT and nephrotic syndrome.
 XX Claim 4; SEQ ID NO 7; 43pp; English.
 CC The invention relates to peptides (I) of Dendroaspis of formula X0-Pro-X1
 CC -A5-Al-A3-Pro-Al-Pro-Al-A5-Pro-X1-X1-X1-A4. Where A1 is Leu, Lys, Arg,
 CC His, Orn, Asn or Gln; A3 is Asp or Glu; A4 is Lys, Arg, Orn, Ala, Thr,
 CC Asn or Gln; A5 is Gly, Ala, Val, Met, Leu, Norleucine or Ile; X1 Ser or
 CC Thr; and X0 is absent or is a 1-35 amino acid peptide, provided that X0
 CC is not Glu-Val-Lys-Tyr-Pro-Cys-Phe-Gly-His-Lys-Ile-Asp-Arg-Ile-Asn-
 CC His-Val-Ser-Asn-Leu-Gly-Cys (ADY62998); and (I) is not the 41 amino acid
 CC sequence of ADY62988. Also described: (1) a compound (II) comprising a
 CC variant of the 15 amino acid sequence of ADY62990, where the variant has
 CC one or more amino acid substitutions of Pro to Gly; Ser to Thr; Thr to
 CC Ser; Arg to Lys; Gln or Asn; Ala to Val, Ile, or Leu; Leu to Nor, Ile,
 CC Val, Met, Ala or Phe; Asp to Glu; and Asn to Gln, His, Lys or Arg; and
 CC (2) a composition useful as a natriuretic, diuretic, renin suppressor or
 CC vasodilator comprising (I) or (II) with a pharmaceutically acceptable
 CC carrier. (I) and (II) are useful in the treatment of heart failure in a
 CC mammal such as human, rat, mouse, canine, bovine, equine, ovine, caprine
 CC or feline. (I) either singly or in combination can be used to treat,
 CC ameliorate or prevent congestive heart failure, acute or chronic kidney
 CC failure, hypertension, cirrhosis of the liver, nephrotic syndrome and
 CC other edematous states. The ability of (I) to treat heart failure was
 CC tested in seven male mongrel dogs. The results showed that (I) potently
 CC possessed renin-suppressing action. The present sequence represents the N
 CC -terminus of human brain natriuretic peptide (BNP) from the present
 CC invention.

```

XX SQ Sequence 26 AA;
Query Match 100.0%; Score 92; DB 9; Length 26;
Best Local Similarity 100.0%; Pred. No. 1.3e-07;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISSSGLGC 17
Db 10 CFCGRKMDRISSSGLGC 26

RESULT 20
ADP49289
ID ADP49289 standard; peptide; 27 AA.
XX AC ADP49289;
XX DT 26-AUG-2004 (first entry)
XX DE Natriuretic compound polypeptide #32.
XX KW cardiant; hypotensive; natriuretic compound; heart failure; hypertension;
XX KW extracellular fluid.
XX OS Synthetic.
XX XX
XX Key Location/Qualifiers
FT Misc-difference 27
FT /note= "Xaa=1 to 10 amino acid"
XX WO2004047871-A2.
XX PD 10-JUN-2004.
XX PF 12-NOV-2003; 2003WO-US037996.
XX PR 26-NOV-2002; 2002US-0429151P.
XX PA (NOBE-) NOBEX CORP.
XX XX
XX PI James KD, Radhakrishnan B, Malkar NB, Miller MA, Ekwuribe NN;
XX DR WPI; 2004-450218/42.
XX XX
XX PT Natriuretic compound conjugate useful in the treatment of e.g. congestive
XX PT heart failure, comprises natriuretic compound and at least one modifying
XX PT moiety.
XX PS Example 25; Page 76; 125pp; English.
XX CC The present invention relates to a natriuretic compound, which comprises
XX CC a natriuretic compound containing a natriuretic molecule NPR-A
XX CC (natriuretic peptide receptor-A) binding site and at least one modifying
XX CC moiety conjugation site, and at least one modifying moiety attached to
XX CC the modifying moiety conjugation site. The conjugates are used for the
XX CC treatment of a condition involving an excess level of extracellular fluid
XX CC e.g. chronic or acute congestive heart failure and hypertension. The
XX CC present sequence is a peptide shown in the invention.
XX XX
XX SQ Sequence 27 AA;
Query Match 100.0%; Score 92; DB 8; Length 27;
Best Local Similarity 100.0%; Pred. No. 1.4e-07;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISSSGLGC 17
Db 10 CFCGRKMDRISSSGLGC 26

RESULT 21
ADW45318
Query Match 100.0%; Score 92; DB 9; Length 27;
Best Local Similarity 100.0%; Pred. No. 1.4e-07;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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ID ADW45318 standard; peptide; 27 AA.
XX AC ADW45318;
XX DT 07-APR-2005 (first entry)
XX DE Human fusion-related BNP (brain natriuretic peptide) peptide - SEQ 322.
XX XX
XX KW fusion protein; anti-HIV; gastrointestinal-gen.; antidiabetic; anorectic;
XX KW nephrotropic; cardiant; cytostatic; neuroprotective; immunosuppressive;
XX KW immune disorder; hematological disease; hyperproliferative disorder;
XX KW renal disease; cardiovascular disease; cardiovascular-gen.;
XX KW respiratory disorder; angiogenesis disorder; neurological disease;
XX KW wound healing; vulnerrary; endocrine disease; reproductive disorder;
XX KW gynecological; infectious disease; antimicrobial;
XX KW gastrointestinal disease; gene therapy; BNP; brain natriuretic peptide.
XX XX
XX OS Homo sapiens.
XX XX
XX PN WO2005003296-A2.
XX PD 13-JAN-2005.
XX PF 20-JAN-2004; 2004WO-US001369.
XX XX
XX PR 22-JAN-2003; 2003US-0441305P.
XX PR 11-MAR-2003; 2003US-0453201P.
XX PR 02-MAY-2003; 2003US-0467222P.
XX PR 23-MAY-2003; 2003US-0472816P.
XX PR 06-JUN-2003; 2003US-0476267P.
XX PR 24-SEP-2003; 2003US-0505172P.
XX PR 30-SEP-2003; 2003US-0506746P.
XX XX
XX PA (HUMA-) HUMAN GENOME SCI INC.
XX XX
XX PI Haseltine WA, Rosen CA;
XX XX
XX DR WPI; 2005-091786/10.
XX DR N-PSDB; ADW45144.
XX XX
XX PT New albumin fusion protein for diagnosing, treating or preventing
XX PT diseases such as HIV/AIDS, diabetes, obesity, heart disease or immune
XX PT disorders comprises a therapeutic protein (e.g. CD4M33, GLP-2 or PACAP-
XX PT 27) and an albumin.
XX XX
XX PS Example 4; SEQ ID NO 322; 884pp; English.
XX XX
XX CC The invention relates to a novel albumin fusion protein comprising a
XX CC therapeutic protein as listed in the specification in table 1 and an
XX CC albumin comprising a sequence of SEQ ID NO: 1, or a fragment or variant
XX CC of SEQ ID NO: 1, where the fragment or variant has albumin activity and
XX CC where the albumin activity is the ability to prolong the shelf life of
XX CC the therapeutic protein compared to the shelf-life of the therapeutic
XX CC protein in an unfused state. Human serum albumin (HSA, HA) is responsible
XX CC for a significant proportion of the osmotic pressure of serum and also
XX CC functions as a carrier of endogenous and exogenous ligands. The fusion
XX CC protein of the invention demonstrates anti-HIV, gastrointestinal-gen.,
XX CC antidiabetic, anorectic, cardiant and immunosuppressive activities. The
XX CC fusion protein may be useful for diagnosing, treating, preventing or
XX CC ameliorating diseases, such as immune disorders, blood disorders,
XX CC hyperproliferative disorders, renal disorders, cardiovascular disorders,
XX CC respiratory disorders, angiogenesis-related disorders, neurological
XX CC disorders, wound healing disorders, endocrine disorders, reproductive
XX CC disorders, infectious disorders and gastrointestinal disorders, possibly
XX CC with the use of gene therapy techniques. The current sequence is that of
XX CC the human fusion-related BNP (brain natriuretic peptide) peptide - SEQ
XX CC 322 of the invention.
XX XX
XX SQ Sequence 27 AA;

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Query Match 100.0%; Score 92; DB 9; Length 27;
Best Local Similarity 100.0%; Pred. No. 1.4e-07;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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```
QY      1 CFGRKMDRISSSGLGC 17
DB      |||||
        10 CFGRKMDRISSSGLGC 26

RESULT 22
ID      ADW45367
XX      ADW45367 standard; peptide; 27 AA.
XX      ADW45367;
DT      07-APR-2005 (first entry)
XX      Human BNP (brain natriuretic peptide) peptide - SEQ ID 371.
XX      fusion protein; anti-HIV; gastrointestinal-gen.; antidiabetic; anorectic;
KW      nephrotropic; cardiant; cytostatic; neuroprotective; immunosuppressive;
KW      immune disorder; hematological disease; hyperproliferative disorder;
KW      renal disease; cardiovascular disease; cardiovascular-gen.;
KW      respiratory disorder; angiodysplasia disorder; neurological disease;
KW      wound healing; vulnary; endocrine disease; reproductive disorder;
KW      gynecological; infectious disease; antimicrobial;
KW      gastrointestinal disease; gene therapy; BNP; brain natriuretic peptide.
XX      Homo sapiens.
OS      WO2005003296-A2.
XX      13-JAN-2005.
XX      20-JAN-2004; 2004WO-US001369.
XX      22-JAN-2003; 2003US-0441305P.
PR      11-MAR-2003; 2003US-0453201P.
PR      02-MAY-2003; 2003US-0467222P.
PR      23-MAY-2003; 2003US-0472816P.
PR      06-JUN-2003; 2003US-0476267P.
PR      24-SEP-2003; 2003US-0505172P.
PR      30-SEP-2003; 2003US-0506746P.
XX      (HUMA-) HUMAN GENOME SCI INC.
XX      Haseltine WA, Rosen CA;
PI      WPI; 2005-091786/10.
XX      N-PSDB; ADW45193.
XX      New albumin fusion protein for diagnosing, treating or preventing
PT      diseases such as HIV/AIDS, diabetes, obesity, heart disease or immune
PT      disorders comprises a therapeutic protein (e.g. CD4M33, GLP-2 or PACAP-
PT      27) and an albumin.
XX      Example 4; SEQ ID NO 371; 884pp; English.
XX      The invention relates to a novel albumin fusion protein comprising a
CC      therapeutic protein as listed in the specification in Table 1 and an
CC      albumin comprising a sequence of SEQ ID NO: 1, or a fragment or variant
CC      of SEQ ID NO: 1, where the fragment or variant has albumin activity and
CC      where the albumin activity is the ability to prolong the shelf life of
CC      the therapeutic protein compared to the shelf-life of the therapeutic
CC      protein in an unfused state. Human serum albumin (HSA, HA) is responsible
CC      for a significant proportion of the osmotic pressure of serum and also
CC      functions as a carrier of endogenous and exogenous ligands. The fusion
CC      protein of the invention demonstrates anti-HIV, gastrointestinal-gen.,
CC      antidiabetic, anorectic, cardiant and immunosuppressive activities. The
CC      fusion protein may be useful for diagnosing, treating, preventing or
CC      ameliorating diseases, such as immune disorders, blood disorders,
CC      hyperproliferative disorders, renal disorders, cardiovascular disorders,
CC      respiratory disorders, angiodysplasia-related disorders, neurological
CC      disorders, wound healing disorders, endocrine disorders, reproductive
CC      disorders, infectious disorders and gastrointestinal disorders, possibly
CC      with the use of gene therapy techniques. The current sequence is that of
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CC      the human BNP (brain natriuretic peptide) peptide - SEQ ID 371 of the
CC      invention.
XX      Sequence 27 AA;
XX      Query Match      100.0%; Score 92; DB 9; Length 27;
XX      Best Local Similarity 100.0%; Pred. No. 1.4e-07;
XX      Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY      1 CFGRKMDRISSSGLGC 17
DB      |||||
        10 CFGRKMDRISSSGLGC 26

RESULT 23
ADW45365
ID      ADW45365 standard; peptide; 28 AA.
XX      AC      ADW45365;
XX      DT      07-APR-2005 (first entry)
XX      DE      Human BNP (brain natriuretic peptide) peptide - SEQ ID 369.
XX      KW      fusion protein; anti-HIV; gastrointestinal-gen.; antidiabetic; anorectic;
KW      nephrotropic; cardiant; cytostatic; neuroprotective; immunosuppressive;
KW      immune disorder; hematological disease; hyperproliferative disorder;
KW      renal disease; cardiovascular disease; cardiovascular-gen.;
KW      respiratory disorder; angiodysplasia disorder; neurological disease;
KW      wound healing; vulnary; endocrine disease; reproductive disorder;
KW      gynecological; infectious disease; antimicrobial;
KW      gastrointestinal disease; gene therapy; BNP; brain natriuretic peptide.
XX      Homo sapiens.
OS      WO2005003296-A2.
XX      13-JAN-2005.
XX      20-JAN-2004; 2004WO-US001369.
XX      22-JAN-2003; 2003US-0441305P.
PR      11-MAR-2003; 2003US-0453201P.
PR      02-MAY-2003; 2003US-0467222P.
PR      23-MAY-2003; 2003US-0472816P.
PR      06-JUN-2003; 2003US-0476267P.
PR      24-SEP-2003; 2003US-0505172P.
PR      30-SEP-2003; 2003US-0506746P.
XX      (HUMA-) HUMAN GENOME SCI INC.
XX      Haseltine WA, Rosen CA;
PI      WPI; 2005-091786/10.
XX      N-PSDB; ADW45193.
XX      New albumin fusion protein for diagnosing, treating or preventing
PT      diseases such as HIV/AIDS, diabetes, obesity, heart disease or immune
PT      disorders comprises a therapeutic protein (e.g. CD4M33, GLP-2 or PACAP-
PT      27) and an albumin.
XX      Example 4; SEQ ID NO 369; 884pp; English.
XX      The invention relates to a novel albumin fusion protein comprising a
CC      therapeutic protein as listed in the specification in Table 1 and an
CC      albumin comprising a sequence of SEQ ID NO: 1, or a fragment or variant
CC      of SEQ ID NO: 1, where the fragment or variant has albumin activity and
CC      where the albumin activity is the ability to prolong the shelf life of
CC      the therapeutic protein compared to the shelf-life of the therapeutic
CC      protein in an unfused state. Human serum albumin (HSA, HA) is responsible
CC      for a significant proportion of the osmotic pressure of serum and also
CC      functions as a carrier of endogenous and exogenous ligands. The fusion
CC      protein of the invention demonstrates anti-HIV, gastrointestinal-gen.,
CC      antidiabetic, anorectic, cardiant and immunosuppressive activities. The
CC      fusion protein may be useful for diagnosing, treating, preventing or
CC      ameliorating diseases, such as immune disorders, blood disorders,
CC      hyperproliferative disorders, renal disorders, cardiovascular disorders,
CC      respiratory disorders, angiodysplasia-related disorders, neurological
CC      disorders, wound healing disorders, endocrine disorders, reproductive
CC      disorders, infectious disorders and gastrointestinal disorders, possibly
CC      with the use of gene therapy techniques. The current sequence is that of
```

CC antidiabetic, anorectic, cardiant and immunosuppressive activities. The
 CC fusion protein may be useful for diagnosing, treating, preventing or
 CC ameliorating diseases, such as immune disorders, blood disorders,
 CC hyperproliferative disorders, renal disorders, cardiovascular disorders,
 CC respiratory disorders, angiogenesis-related disorders, neurological
 CC disorders, wound healing disorders, endocrine disorders, reproductive
 CC disorders, infectious disorders and gastrointestinal disorders, possibly
 CC with the use of gene therapy techniques. The current sequence is that of
 CC the human BNP (brain natriuretic peptide) peptide - SEQ ID 369 of the
 CC invention.
 XX
 SQ Sequence 28 AA;
 Query Match 100.0%; Score 92; DB 9; Length 28;
 Best Local Similarity 100.0%; Pred. No. 1.5e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 DB 10 CFGRKMDRISSSSGLGC 26
 |||||
 RESULT 24
 ADW45319
 ID ADM45319 standard; peptide; 28 AA.
 XX
 AC ADM45319;
 XX
 DT 07-APR-2005 (first entry)
 DE Human fusion-related BNP (brain natriuretic peptide) peptide - SEQ 323.
 XX
 KW fusion protein; anti-HIV; gastrointestinal-gen.; antidiabetic; anorectic;
 KW nephrotropic; cardiant; cytostatic; neuroprotective; immunosuppressive;
 KW immune disorder; hematological disease; hyperproliferative disorder;
 KW renal disease; cardiovascular disease; hyperproliferative disorder;
 KW respiratory disorder; angiogenesis disorder; cardiovascular disease;
 KW wound healing; vulnary; endocrine disease; neurological disease;
 KW gynecological; infectious disease; antimicrobial;
 KW gastrointestinal disease; gene therapy; BNP; brain natriuretic peptide.
 XX
 OS Homo sapiens.
 XX
 PN WO2005003296-A2.
 XX
 PD 13-JAN-2005.
 XX
 PF 20-JAN-2004; 2004WO-US001369.
 XX
 PR 22-JAN-2003; 2003US-0441305P.
 PR 11-MAR-2003; 2003US-0453201P.
 PR 02-MAY-2003; 2003US-0467222P.
 PR 23-MAY-2003; 2003US-0472816P.
 PR 06-JUN-2003; 2003US-0476267P.
 PR 24-SEP-2003; 2003US-0505172P.
 PR 30-SEP-2003; 2003US-0506746P.
 XX
 PA (HUMA-) HUMAN GENOME SCI INC.
 XX
 PI Haseltine WA, Rosen CA;
 XX
 XX WPI; 2005-091786/10.
 DR N-PSDB; ADW45145.
 DR
 XX
 PT New albumin fusion protein for diagnosing, treating or preventing
 PT diseases such as HIV/AIDS, diabetes, obesity, heart disease or immune
 PT disorders comprises a therapeutic protein (e.g. CD4W33, GLP-2 or PACAP-
 PT 27) and an albumin.
 XX
 PS Example 4; SEQ ID NO 323; 884pp; English.
 XX
 CC The invention relates to a novel albumin fusion protein comprising a
 CC therapeutic protein as listed in the specification in Table 1 and an

CC albumin comprising a sequence of SEQ ID NO: 1, or a fragment or variant
 CC of SEQ ID NO: 1, where the fragment or variant has albumin activity and
 CC where the albumin activity is the ability to prolong the shelf life of
 CC the therapeutic protein compared to the shelf-life of the therapeutic
 CC protein in an unfused state. Human serum albumin (HSA, HA) is responsible
 CC for a significant proportion of the osmotic pressure of serum and also
 CC functions as a carrier of endogenous and exogenous ligands. The fusion
 CC protein of the invention demonstrates anti-HIV, gastrointestinal-gen.,
 CC antidiabetic, anorectic, cardiant and immunosuppressive activities. The
 CC fusion protein may be useful for diagnosing, treating, preventing or
 CC ameliorating diseases, such as immune disorders, blood disorders,
 CC hyperproliferative disorders, renal disorders, cardiovascular disorders,
 CC respiratory disorders, angiogenesis-related disorders, neurological
 CC disorders, wound healing disorders, endocrine disorders, reproductive
 CC disorders, infectious disorders and gastrointestinal disorders, possibly
 CC with the use of gene therapy techniques. The current sequence is that of
 CC the human fusion-related BNP (brain natriuretic peptide) peptide - SEQ
 CC 323 of the invention.
 XX
 SQ Sequence 28 AA;
 Query Match 100.0%; Score 92; DB 9; Length 28;
 Best Local Similarity 100.0%; Pred. No. 1.5e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 DB 10 CFGRKMDRISSSSGLGC 26
 |||||
 RESULT 25
 ADP49272
 ID ADP49272 standard; peptide; 29 AA.
 XX
 AC ADP49272;
 XX
 DT 26-AUG-2004 (first entry)
 XX
 DE Natriuretic compound polypeptide #15.
 XX
 KW cardiant; hypotensive; natriuretic compound; heart failure; hypertension;
 KW extracellular fluid.
 XX
 OS Synthetic.
 XX
 PN WO2004047871-A2.
 XX
 PD 10-JUN-2004.
 XX
 PF 12-NOV-2003; 2003WO-US037996.
 XX
 PR 26-NOV-2002; 2002US-0429151P.
 XX
 PA (NOBE-) NOBEX CORP.
 XX
 PI James KD, Radhakrishnan B, Malkar NB, Miller MA, Ekwuribe NN;
 XX
 DR WPI; 2004-450218/42.
 XX
 PT Natriuretic compound conjugate useful in the treatment of e.g. congestive
 PT heart failure, comprises natriuretic compound and at least one modifying
 PT moiety.
 XX
 PS Claim 18; Page 93; 125pp; English.
 XX
 CC The present invention relates to a natriuretic compound, which comprises
 CC a natriuretic compound containing a natriuretic molecule NPR-A
 CC (natriuretic peptide receptor-A) binding site and at least one modifying
 CC moiety conjugation site, and at least one modifying moiety attached to
 CC the modifying moiety conjugation site. The conjugates are used for the
 CC treatment of a condition involving an excess level of extracellular fluid
 CC e.g. chronic or acute congestive heart failure and hypertension. The
 CC present sequence is a peptide shown in the invention.

```

XX SQ Sequence 29 AA;
Query Match 100.0%; Score 92; DB 8; Length 29;
Best Local Similarity 100.0%; Pred. No. 1.5e-07;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 26
ADP49302
ID ADP49302 standard; peptide; 29 AA.
XX
XX ADP49302;
AC
XX
XX 26-AUG-2004 (first entry)
DT
XX
DE Natriuretic compound polypeptide #45.
XX
XX cardiant; hypotensive; natriuretic compound; heart failure; hypertension;
KW extracellular fluid.
KW
XX
XX Synthetic.
OS
XX
XX Key Location/Qualifiers
FH
FT Misc-difference 3 /note= "Xaa-any amino acid except Lys"
FT
XX
XX WO2004047871-A2.
PN
XX
XX 10-JUN-2004.
PD
XX
XX 12-NOV-2003; 2003WO-US037996.
PF
XX
XX 26-NOV-2002; 2002US-0429151P.
PR
XX
XX (NOBE-) NOBEX CORP.
PA
XX
XX James KD, Radhakrishnan B, Malkar NB, Miller MA, Ekwuribe NN;
PI
XX WPI; 2004-450218/42.
DR
XX
XX Natriuretic compound conjugate useful in the treatment of e.g. congestive
PT heart failure, comprises natriuretic compound and at least one modifying
PT moiety.
XX
XX Example 25; Page 77; 125pp; English.
PS
XX
XX The present invention relates to a natriuretic compound, which comprises
CC a natriuretic compound containing a natriuretic molecule NPR-A
CC (natriuretic peptide receptor-A) binding site and at least one modifying
CC moiety conjugation site, and at least one modifying moiety attached to
CC the modifying moiety conjugation site. The conjugates are used for the
CC treatment of a condition involving an excess level of extracellular fluid
CC e.g. chronic or acute congestive heart failure and hypertension. The
CC present sequence is a peptide shown in the invention.
XX
XX Sequence 29 AA;
SQ
Query Match 100.0%; Score 92; DB 8; Length 29;
Best Local Similarity 100.0%; Pred. No. 1.5e-07;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 27
ADW45311
XX
XX ADW45311 standard; peptide; 29 AA.
XX
XX ADW45311;
AC
XX
XX 07-APR-2005 (first entry)
DT
XX
XX Human fusion-related BNP (brain natriuretic peptide) peptide - SEQ 315.
DE
XX
XX fusion protein; anti-HIV; gastrointestinal-gen.; antidiabetic; anorectic;
KW nephrotropic; cardiant; cytostatic; neuroprotective; immunosuppressive;
KW immune disorder; hematological disease; hyperproliferative disorder;
KW renal disease; cardiovascular disease; cardiovascular-gen.;
KW respiratory disorder; angiogenesis disorder; neurological disease;
KW wound healing; vulnary; endocrine disease; reproductive disorder;
KW gynecological; infectious disease; antimicrobial;
KW gastrointestinal disease; gene therapy; BNP; brain natriuretic peptide.
XX
XX Homo sapiens.
OS
XX
XX WO2005003296-A2.
PN
XX
XX 13-JAN-2005.
PD
XX
XX 20-JAN-2004; 2004WO-US001369.
PF
XX
XX 22-JAN-2003; 2003US-0441305P.
PR
XX 11-MAR-2003; 2003US-0453201P.
PR
XX 02-MAY-2003; 2003US-0467222P.
PR
XX 23-MAY-2003; 2003US-0472816P.
PR
XX 06-JUN-2003; 2003US-0476267P.
PR
XX 24-SEP-2003; 2003US-0505172P.
PR
XX 30-SEP-2003; 2003US-0506746P.
XX
XX (HUMA-) HUMAN GENOME SCI INC.
PA
XX
XX Haseltine WA, Rosen CA;
PI
XX
XX WPI; 2005-091786/10.
DR
XX
XX N-PSDB; ADW45137.
XX
XX New albumin fusion protein for diagnosing, treating or preventing
PT diseases such as HIV/AIDS, diabetes, obesity, heart disease or immune
PT disorders comprises a therapeutic protein (e.g. CD4M33, GLP-2 or PACAP-
PT 27) and an albumin.
XX
XX Example 4; SEQ ID NO 315; 884pp; English.
PS
XX
XX The invention relates to a novel albumin fusion protein comprising a
CC therapeutic protein as listed in the specification in Table 1 and an
CC albumin comprising a sequence of SEQ ID NO: 1, or a fragment or variant
CC of SEQ ID NO: 1, where the fragment or variant has albumin activity and
CC where the albumin activity is the ability to prolong the shelf life of
CC the therapeutic protein compared to the shelf-life of the therapeutic
CC protein in an unfused state. Human serum albumin (HSA, HA) is responsible
CC for a significant proportion of the osmotic pressure of serum and also
CC functions as a carrier of endogenous and exogenous ligands. The fusion
CC protein of the invention demonstrates anti-HIV, gastrointestinal-gen.,
CC antidiabetic, anorectic, cardiant and immunosuppressive activities. The
CC fusion protein may be useful for diagnosing, treating, preventing or
CC ameliorating diseases, such as immune disorders, blood disorders,
CC hyperproliferative disorders, renal disorders, cardiovascular disorders,
CC respiratory disorders, angiogenesis-related disorders, neurological
CC disorders, wound healing disorders, endocrine disorders, reproductive
CC disorders, infectious disorders and gastrointestinal disorders, possibly
CC with the use of gene therapy techniques. The current sequence is that of
CC the human fusion-related BNP (brain natriuretic peptide) peptide - SEQ
CC 315 of the invention.
XX
XX Sequence 29 AA;
SQ
Query Match 100.0%; Score 92; DB 9; Length 29;
Best Local Similarity 100.0%; Pred. No. 1.5e-07;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```


QY 1 CFGRKMDRISSSSGLGC 17
 DB 10 CFGRKMDRISSSSGLGC 26

RESULT 28

ADW45310
 ID ADW45310 standard; peptide; 29 AA.

XX AC ADW45310;

XX DT 07-APR-2005 (first entry)

DE Human fusion-related BNP (brain natriuretic peptide) peptide - SEQ 314.

XX fusion protein; anti-HIV; gastrointestinal-gen.; antidiabetic; anorectic;
 KW nephrotropic; cardiac; cytostatic; neuroprotective; immunosuppressive;
 KW immune disorder; hematological disease; hyperproliferative disorder;
 KW renal disease; cardiovascular disease; cardiovascular-gen.;
 KW respiratory disorder; angioneurosis disorder; neurological disease;
 KW wound healing; vulnary; endocrine disease; reproductive disorder;
 KW gynecological; infectious disease; antimicrobial;
 KW gastrointestinal disease; gene therapy; BNP; brain natriuretic peptide.

XX Homo sapiens.

XX WO2005003296-A2.

XX 13-JAN-2005.

XX 20-JAN-2004; 2004WO-US001369.

XX 22-JAN-2003; 2003US-0441305P.

PR 11-MAR-2003; 2003US-0453201P.

PR 02-MAY-2003; 2003US-0467222P.

PR 23-MAY-2003; 2003US-0472816P.

PR 06-JUN-2003; 2003US-0476267P.

PR 24-SEP-2003; 2003US-0505172P.

PR 30-SEP-2003; 2003US-0506746P.

XX (HUMA-) HUMAN GENOME SCI INC.

PA Haseltine WA, Rosen CA;

PI WPI; 2005-091786/10.

XX N-PSDB; ADW45136.

XX New albumin fusion protein for diagnosing, treating or preventing

PT diseases such as HIV/AIDS, diabetes, obesity, heart disease or immune
 PT disorders comprises a therapeutic protein (e.g. CD4M33, GLP-2 or PACAP-
 PT 27) and an albumin.
 XX Example 4; SEQ ID NO 314; 884pp; English.
 XX The invention relates to a novel albumin fusion protein comprising a
 CC therapeutic protein as listed in the specification in Table 1 and an
 CC albumin comprising a sequence of SEQ ID NO: 1, or a fragment or variant
 CC of SEQ ID NO: 1, where the fragment or variant has albumin activity and
 CC where the albumin activity is the ability to prolong the shelf life of
 CC the therapeutic protein compared to the shelf-life of the therapeutic
 CC protein in an unfused state. Human serum albumin (HSA, HA) is responsible
 CC for a significant proportion of the osmotic pressure of serum and also
 CC functions as a carrier of endogenous and exogenous ligands. The fusion
 CC protein of the invention demonstrates anti-HIV, gastrointestinal-gen.,
 CC antidiabetic, anorectic, cardiac and immunosuppressive activities. The
 CC fusion protein may be useful for diagnosing, treating, preventing or
 CC ameliorating diseases, such as immune disorders, blood disorders,
 CC hyperproliferative disorders, renal disorders, cardiovascular disorders,
 CC respiratory disorders, angiogenesis-related disorders, neurological
 CC disorders, wound healing disorders, endocrine disorders, reproductive
 CC disorders, infectious disorders and gastrointestinal disorders, possibly
 CC with the use of gene therapy techniques. The current sequence is that of

CC the human fusion-related BNP (brain natriuretic peptide) peptide - SEQ
 CC 314 of the invention.

XX Sequence 29 AA;

Query Match 100.0%; Score 92; DB 9; Length 29;
 Best Local Similarity 100.0%; Pred. No. 1.5e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17

DB 10 CFGRKMDRISSSSGLGC 26

RESULT 29

AAR34302

ID AAR34302 standard; protein; 31 AA.

XX AC AAR34302;

XX DT 28-JUL-1993 (first entry)

XX Mutated BNP.

XX Wild type; brain natriuretic peptide; BNP; modify; Asp-Pro.

XX Homo sapiens.

XX JP05056794-A.

XX 09-MAR-1993.

XX 03-SEP-1991; 91JP-00222783.

XX 03-SEP-1991; 91JP-00222783.

XX (DAII-) DAIICHI KAGAKU YAKUIN KK.

XX (DAUC) DAIICHI PHARM CO LTD.

XX WPI; 1993-120386/15.

XX Physiologically active peptide prepn. e.g. human brain natriuretic
 PT peptide - By culturing transformed cells having gene which encodes fused
 PT protein of active and protective peptide(s), collecting and cleaving
 PT protein.

XX Disclosure; Page 7; 16pp; Japanese.

XX The sequences given in AAR34301-02 are mutated brain natriuretic peptides
 CC (BNP). These peptides have been modified such that the Asp in the N-
 CC terminal Asp-Pro linkage may be replaced by Ser or may be deleted

XX Sequence 31 AA;

Query Match 100.0%; Score 92; DB 2; Length 31;
 Best Local Similarity 100.0%; Pred. No. 1.6e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17

DB 9 CFGRKMDRISSSSGLGC 25

RESULT 30

AAR40861

ID AAR40861 standard; protein; 32 AA.

XX AC AAR40861;

XX DT 14-MAR-1994 (first entry)

XX BNP.

XX

KW BNP; brain natriuretic peptide; transformation; expression; cloning;
 KW puc119; protease V8.
 XX
 OS Homo sapiens.
 XX
 PN JP05207891-A.
 XX
 PD 20-AUG-1993.
 XX
 PF 08-MAR-1991; 91JP-00043641.
 XX
 PR 08-MAR-1991; 91JP-00043641.
 XX
 PA (SHIO) SHIONOGI & CO LTD.
 XX
 DR WPI; 1993-297469/38.
 DR N-PSDB; AAQ47829.
 XX
 PT Brain natriuretic peptide prepn. - by forming fused peptide contg.
 PT desired sequence, cleaving with restriction enzyme and collecting desired
 PT peptide.
 XX
 PS Disclosure; Page 8; 11pp; Japanese.
 XX
 CC The prepn. of BNP comprises: (a) obtaining a fused protein protein of
 CC formula X-Glu-BNP, where X is a leader sequence of 70-170 amino acids
 CC can cleave between Glu and BNP. (c) collecting BNP. The BNP sequence is
 CC shown in (AAQ47829) and the Glu-BNP sequence is given in (AAQ47831)
 XX
 SQ Sequence 32 AA;
 Query Match 100.0%; Score 92; DB 2; Length 32;
 Best Local Similarity 100.0%; Pred. No. 1.7e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 DB 10 CFGRKMDRISSSSGLGC 26
 RESULT 31
 AAR34301
 ID AAR34301 standard; protein; 32 AA.
 AC AAR34301;
 XX
 DT 28-JUL-1993 (first entry)
 XX
 DE Mutated hBNP.
 XX
 KW Wild type; brain natriuretic peptide; BNP; modify; Asp-Pro.
 XX
 OS Homo sapiens.
 XX
 PN JP05056794-A.
 XX
 PD 09-MAR-1993.
 XX
 PF 03-SEP-1991; 91JP-00222783.
 XX
 PR 03-SEP-1991; 91JP-00222783.
 XX
 PA (DAIICHI KAGAKU YAKUHHIN KK.
 PA (DAUC) DAIICHI PHARM CO LTD.
 XX
 DR WPI; 1993-120386/15.
 XX
 PT Physiologically active peptide prepn. e.g. human brain natriuretic
 PT peptide - by culturing transformed cells having gene which encodes fused
 PT protein of active and protective peptide(s), collecting and cleaving
 PT protein.
 XX

PS Disclosure; Page 6; 16pp; Japanese.
 XX
 CC The sequences given in AAR34301-02 are mutated brain natriuretic peptides
 CC (BNP). These peptides have been modified such that the Asp in the N-
 CC terminal Asp-Pro linkage may be replaced by Ser or may be deleted
 XX
 SQ Sequence 32 AA;
 Query Match 100.0%; Score 92; DB 2; Length 32;
 Best Local Similarity 100.0%; Pred. No. 1.7e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 DB 10 CFGRKMDRISSSSGLGC 26
 RESULT 32
 AAR36381
 ID AAR36381 standard; protein; 32 AA.
 AC AAR36381;
 XX
 DT 29-JUL-1993 (first entry)
 XX
 DE Recombinant hBNP.
 XX
 KW Plasmid; fusion peptide; murine; rat; interleukin 1; IL-1; human;
 KW brain natriuretic peptide; hBNP; recombinant; BNP.
 XX
 OS Synthetic.
 XX
 FH Key Location/Qualifiers
 FT Misc-difference 1 /note= "May be absent"
 FT
 XX
 PN JP05068581-A.
 XX
 PD 23-MAR-1993.
 XX
 PF 10-SEP-1991; 91JP-00230597.
 XX
 PR 10-SEP-1991; 91JP-00230597.
 XX
 PA (DAIICHI KAGAKU YAKUHHIN KK.
 PA (DAUC) DAIICHI PHARM CO LTD.
 XX
 DR WPI; 1993-130645/16.
 XX
 PT Prepn. of physiologically active peptide without aspartic acid-proline
 PT sequence - comprises gene recombination with cell transformation by
 PT specified expression vector.
 XX
 PS Claim 3; Page 6; 17pp; Japanese.
 XX
 CC This sequence represent a recombinant human brain natriuretic peptide
 CC (hBNP). This protein was encoded by the fragments of plasmids given in
 CC Q4110-04 which encode fusion peptides of murine or rat interleukin 1 (IL-
 CC 1) fused to hBNP. Fusion genes of this kind can be used to express
 CC recombinant BNP which lacks the Asp-Pro N-terminal bond. The Asp residue
 CC may be replaced by Ser or may be absent
 XX
 SQ Sequence 32 AA;
 Query Match 100.0%; Score 92; DB 2; Length 32;
 Best Local Similarity 100.0%; Pred. No. 1.7e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 DB 10 CFGRKMDRISSSSGLGC 26

```

RESULT 33
AAW70090
ID AAW70090 standard; peptide; 32 AA.
XX
XX AC AAW70090;
XX
XX DT 28-OCT-1998 (first entry)
XX
XX DE Brain natriuretic peptide (BNP) 1.
XX
XX KW BNP; brain natriuretic peptide; cardiac disease; cardiac hypertrophy;
XX chronic heart failure; ischaemic cardiac disease; arrhythmia; CGMP;
XX pulmonary blood circulation; haemodynamic property.
XX
XX OS Unidentified.
XX
XX PN W09834636-A1.
XX
XX PD 13-AUG-1998.
XX
XX XX 05-FEB-1998; 98WO-JP000483.
XX
XX PF 05-FEB-1997; 97JP-00022594.
XX
XX PR (SUNR ) SUNTORY LTD.
XX
XX PA Inomata N, Yamaki A, Furuya M, Hidaka T;
XX
XX PI WPI; 1998-446949/38.
XX
XX DR
XX
XX PT Drug composition comprises natriuretic peptide(s) - for safe treatment of
XX cardiac hypertrophy associated diseases and chronic heart failure.
XX
XX PS Example; Page 23; 35pp; Japanese.
XX
XX CC This represents a brain natriuretic peptide (BNP) sequence. The invention
XX provides a composition for treating cardiac diseases associated with
XX cardiac hypertrophy. The composition comprises an active ingredient
XX capable of binding to the peptide receptor of GC-A and promoting
XX production of cGMP. The drug composition may be used clinically to treat
XX cardiac diseases caused by cardiac hypertrophy, including chronic heart
XX failure, ischaemic cardiac diseases and arrhythmia. The active substance
XX can bind to the natriuretic peptide receptor of GC-A and promote
XX production of cGMP, effectively preventing cardiac hypertrophy and
XX leading to improvement of the pulmonary blood circulation. The substance
XX does not affect haemodynamic properties, blood pressure, heart beat and
XX urine volume
XX
XX SQ Sequence 32 AA;
XX
XX Query Match 100.0%; Score 92; DB 2; Length 32;
XX Best Local Similarity 100.0%; Pred. No. 1.7e-07; Indels 0; Gaps 0
XX Matches 17; Conservative 0; Mismatches 0;
XX
XX QY 1 CFIGKMDRISSSGLGC 17
XX |||||
XX 10 CFIGKMDRISSSGLGC 26
XX
XX RESULT 34
XX AAW67040
XX ID AAW67040 standard; peptide; 32 AA.
XX
XX XX AAW67040;
XX
XX XX 15-DEC-1998 (first entry)
XX
XX DT Brain natriuretic peptide (BNP).
XX
XX DE
XX
XX KW arial natriuretic peptide; brain natriuretic peptide; ANP; BNP;
XX lipophilic substituent; hypertension; congestive heart failure; oedema;
XX renal disorder.
XX

```

AAB82550
 ID AAB82550 standard; peptide; 32 AA.
 XX
 AC AAB82550;
 XX
 DT 17-SEP-2001 (first entry)
 XX
 DE Human brain natriuretic peptide.
 XX
 KW Brain natriuretic peptide; BNP; Dendroaspis natriuretic peptide; DNP;
 KW human; snake venom; diuretic; vasodilator; renin-suppressor;
 KW heart failure; therapy.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Disulfide-bond 10..25
 XX
 PN WO200144284-A2.
 XX
 PD 21-JUN-2001.
 XX
 PF 15-DEC-2000; 2000WO-US034080.
 XX
 PR 17-DEC-1999; 99US-00466268.
 XX
 PA (MAYO-) MAYO FOUND MEDICAL EDUCATION & RES.
 XX
 PI Burnett J, Lisy O;
 XX
 DR WPI; 2001-457339/49.
 XX
 PT Fusion peptides comprising Dendroaspis natriuretic peptides, useful for
 PT treating heart failure and as vasodilators, renin-suppressors and
 PT natriuretics or diuretics.
 PS Disclosure; Fig 1; 81pp; English.
 XX
 CC The present sequence is that of human brain natriuretic peptide (BNP).
 CC The invention provides fusion peptides comprising a biologically active
 CC portion of Dendroaspis natriuretic peptide (DNP). DNP is obtained from
 CC the venom of the green mamba snake, Dendroaspis angusticeps. It contains
 CC a 17-amino acid disulfide ring structure similar to that of BNP. Claimed
 CC methods of treating, inhibiting or preventing heart failure in a mammal
 CC (human, rat, mouse, dog, cattle, horse, sheep, goat or cat) involve
 CC administering DNP or a chimeric peptide including a portion of DNP (see
 CC AAB82543 and AAB82544) and the N-terminal portion of especially human BNP
 CC or C-type natriuretic peptide. Such peptides may also be used to treat
 CC acute or chronic kidney failure, hypertension, cirrhosis of the liver,
 CC nephrotic syndrome and other oedematous states
 XX
 SQ Sequence 32 AA;
 Query Match 100.0%; Score 92; DB 4; Length 32;
 Best Local Similarity 100.0%; Pred. No. 1.7e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 DB 10 CFGRKMDRISSSSGLGC 26
 |||||
 RESULT 36
 AAB91333
 ID AAB91333 standard; peptide; 32 AA.
 XX
 AC AAB91333;
 XX
 DT 22-JUN-2001 (first entry)
 XX
 DE Brain natriuretic peptide (BNP) SEQ ID NO:509.
 DE Protection; endogenous therapeutic peptide; peptidase; conjugation;
 KW
 AAB82550
 ID AAB82550 standard; peptide; 32 AA.
 XX
 AC AAB82550;
 XX
 DT 17-SEP-2001 (first entry)
 XX
 DE Human brain natriuretic peptide.
 XX
 KW Brain natriuretic peptide; BNP; Dendroaspis natriuretic peptide; DNP;
 KW human; snake venom; diuretic; vasodilator; renin-suppressor;
 KW heart failure; therapy.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Disulfide-bond 10..25
 XX
 PN WO200144284-A2.
 XX
 PD 21-JUN-2001.
 XX
 PF 15-DEC-2000; 2000WO-US034080.
 XX
 PR 17-DEC-1999; 99US-00466268.
 XX
 PA (MAYO-) MAYO FOUND MEDICAL EDUCATION & RES.
 XX
 PI Burnett J, Lisy O;
 XX
 DR WPI; 2001-457339/49.
 XX
 PT Fusion peptides comprising Dendroaspis natriuretic peptides, useful for
 PT treating heart failure and as vasodilators, renin-suppressors and
 PT natriuretics or diuretics.
 PS Disclosure; Fig 1; 81pp; English.
 XX
 CC The present sequence is that of human brain natriuretic peptide (BNP).
 CC The invention provides fusion peptides comprising a biologically active
 CC portion of Dendroaspis natriuretic peptide (DNP). DNP is obtained from
 CC the venom of the green mamba snake, Dendroaspis angusticeps. It contains
 CC a 17-amino acid disulfide ring structure similar to that of BNP. Claimed
 CC methods of treating, inhibiting or preventing heart failure in a mammal
 CC (human, rat, mouse, dog, cattle, horse, sheep, goat or cat) involve
 CC administering DNP or a chimeric peptide including a portion of DNP (see
 CC AAB82543 and AAB82544) and the N-terminal portion of especially human BNP
 CC or C-type natriuretic peptide. Such peptides may also be used to treat
 CC acute or chronic kidney failure, hypertension, cirrhosis of the liver,
 CC nephrotic syndrome and other oedematous states
 XX
 SQ Sequence 32 AA;
 Query Match 100.0%; Score 92; DB 4; Length 32;
 Best Local Similarity 100.0%; Pred. No. 1.7e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 DB 10 CFGRKMDRISSSSGLGC 26
 |||||
 RESULT 37
 AAB91340
 ID AAB91340 standard; peptide; 32 AA.
 XX
 AC AAB91340;
 XX
 DT 22-JUN-2001 (first entry)
 XX
 DE Brain natriuretic peptide (BNP) SEQ ID NO:516.
 DE Protection; endogenous therapeutic peptide; peptidase; conjugation;
 KW
 AAB82550
 ID AAB82550 standard; peptide; 32 AA.
 XX
 AC AAB82550;
 XX
 DT 17-SEP-2001 (first entry)
 XX
 DE Human brain natriuretic peptide.
 XX
 KW Brain natriuretic peptide; BNP; Dendroaspis natriuretic peptide; DNP;
 KW human; snake venom; diuretic; vasodilator; renin-suppressor;
 KW heart failure; therapy.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Disulfide-bond 10..25
 XX
 PN WO200144284-A2.
 XX
 PD 21-JUN-2001.
 XX
 PF 15-DEC-2000; 2000WO-US034080.
 XX
 PR 17-DEC-1999; 99US-00466268.
 XX
 PA (MAYO-) MAYO FOUND MEDICAL EDUCATION & RES.
 XX
 PI Burnett J, Lisy O;
 XX
 DR WPI; 2001-457339/49.
 XX
 PT Fusion peptides comprising Dendroaspis natriuretic peptides, useful for
 PT treating heart failure and as vasodilators, renin-suppressors and
 PT natriuretics or diuretics.
 PS Disclosure; Page 366; 733pp; English.
 XX
 CC The present invention describes a modified therapeutic peptide (I)
 CC comprising a therapeutically active amino acid region (III) and a
 CC reactive group (II) (e.g. succinimidyl and maleimido groups) attached to
 CC a less therapeutically active amino acid region (IV), which covalently
 CC bonds with amino/hydroxyl/thiol groups on blood components to form a
 CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
 CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth
 CC factors and neurotransmitters, to protect them from peptidase activity in
 CC vivo for the treatment of various disorders. Endogenous therapeutic
 CC peptides are not suitable as drug candidates as they require frequent
 CC administration due to rapid degradation by peptidases in the body.
 CC Modifying and attaching therapeutic peptides to albumin prevents or
 CC reduces the action of peptidases to increase length of activity (half
 CC life) and specificity as bonding to large molecules decreases
 CC intracellular uptake and interference with physiological processes.
 CC AAB90829 to AAB92441 represent peptides which can be used in the
 CC exemplification of the present invention
 XX
 SQ Sequence 32 AA;
 Query Match 100.0%; Score 92; DB 4; Length 32;
 Best Local Similarity 100.0%; Pred. No. 1.7e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 DB 10 CFGRKMDRISSSSGLGC 26
 |||||
 RESULT 37
 AAB91340
 ID AAB91340 standard; peptide; 32 AA.
 XX
 AC AAB91340;
 XX
 DT 22-JUN-2001 (first entry)
 XX
 DE Brain natriuretic peptide (BNP) SEQ ID NO:516.
 DE Protection; endogenous therapeutic peptide; peptidase; conjugation;
 KW
 AAB82550
 ID AAB82550 standard; peptide; 32 AA.
 XX
 AC AAB82550;
 XX
 DT 17-SEP-2001 (first entry)
 XX
 DE Human brain natriuretic peptide.
 XX
 KW Brain natriuretic peptide; BNP; Dendroaspis natriuretic peptide; DNP;
 KW human; snake venom; diuretic; vasodilator; renin-suppressor;
 KW heart failure; therapy.
 XX
 OS Homo sapiens.
 OS Synthetic.
 XX

PN WO200069900-A2.
 XX 23-NOV-2000.
 XX 17-MAY-2000; 2000WO-US013576.
 XX 17-MAY-1999; 99US-0134406P.
 PR 10-SEP-1999; 99US-0153406P.
 PR 15-OCT-1999; 99US-0159783P.
 XX (CONJ-) CONJUCHEM INC.
 PA Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;
 XX WPI; 2001-112059/12.
 XX
 XX Modifying and attaching therapeutic peptides to albumin prevents
 PT peptidase degradation, useful for increasing length of in vivo activity.
 XX
 PS Disclosure; Page 369; 733pp; English.
 XX
 CC The present invention describes a modified therapeutic peptide (I)
 CC comprising a therapeutically active amino acid region (III) and a
 CC reactive group (II) (e.g. succinimidyl and maleimido groups) attached to
 CC a less therapeutically active amino acid region (IV), which covalently
 CC bonds with amino/hydroxyl/thiol groups on blood components to form a
 CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
 CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth
 CC factors and neurotransmitters, to protect them from peptidase activity in
 CC vivo for the treatment of various disorders. Endogenous therapeutic
 CC peptides are not suitable as drug candidates as they require frequent
 CC administration due to rapid degradation by peptidases in the body.
 CC Modifying and attaching therapeutic peptides to albumin prevents or
 CC reduces the action of peptidases to increase length of activity (half
 CC life) and specificity as bonding to large molecules decreases
 CC intracellular uptake and interference with physiological processes.
 CC AAB90829 to AAB92441 represent peptides which can be used in the
 CC exemplification of the present invention
 XX
 SQ Sequence 32 AA;
 Query Match 100.0%; Score 92; DB 4; Length 32;
 Best Local Similarity 100.0%; Pred. No. 1.7e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 DB 10 CFGRKMDRISSSSGLGC 26
 |||||
 RESULT 38
 AAB45739
 ID AAB45739 standard; protein; 32 AA.
 XX
 AC AAB45739;
 XX
 DT 15-MAR-2001 (first entry)
 XX
 DE Human mature BNP.
 XX
 KW BNP; brain natriuretic peptide; heart failure; vascular restenosis; DNP;
 KW D-type natriuretic peptide; antiarteriosclerotic; cardiant; vasospasm;
 KW antihypertensive; cardiac muscle; pulmonary hypertension; human; ss.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Disulfide-bond 10. .26
 XX
 PN WO200071576-A2.
 XX
 PD 30-NOV-2000.
 XX
 PF 24-MAY-2000; 2000WO-US014351.
 XX
 PR 24-MAY-1999; 99US-0135490P.

XX (MAYO-) MAYO FOUND MEDICAL EDUCATION & RES.
 PA (SIMA/) SIMARI R.
 XX Simari R;
 XX WPI; 2001-025135/03.
 DR N-PSDB; AAC82677.
 XX
 XX Inhibiting or preventing heart failure, hypertension and atherosclerosis,
 PT involves administering a composition comprising a nucleic acid molecule
 encoding brain natriuretic peptide in a delivery vehicle.
 XX
 PS Disclosure; Page 80; 83pp; English.
 XX
 CC This invention describes a novel method for inhibiting or preventing (I)
 CC heart failure in a mammal, by administering a composition containing a
 CC nucleic acid molecule (NAM) comprising a nucleic acid segment encoding
 CC brain natriuretic peptide (BNP), D-type natriuretic peptide (DNP) or its
 CC chimera, in a delivery vehicle. The invention also describes (1) an
 CC isolated and purified NAM (II) comprising a nucleic acid segment encoding
 CC a chimeric natriuretic peptide containing at least a portion of DNP; (2)
 CC an adeno-associated virus vector (III) comprising a NAM containing a
 CC nucleic acid segment encoding BNP, DNP or its chimera operably linked to
 CC transcriptional regulatory elements; (3) an adenovirus vector (IV)
 CC comprising a NAM containing a nucleic acid segment encoding DNP or its
 CC chimera operably linked to transcriptional regulatory elements; and (4) a
 CC composition comprising (II), (III), or (IV) and a delivery vehicle. The
 CC products of the invention have antiarteriosclerotic, cardiant and
 CC antihypertensive activity. The method is useful for inhibiting or
 CC preventing heart failure in a mammal and also to relax cardiac muscle, to
 CC increase BNP levels in a mammal, to detect progression of heart failure
 CC in a mammal subjected to brain natriuretic gene therapy, to inhibit or
 CC prevent vasospasm and pulmonary hypertension in a mammal. DNP and BNP are
 CC also useful for inhibiting or preventing atherosclerosis and vascular
 CC restenosis
 XX
 SQ Sequence 32 AA;
 Query Match 100.0%; Score 92; DB 4; Length 32;
 Best Local Similarity 100.0%; Pred. No. 1.7e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 DB 10 CFGRKMDRISSSSGLGC 26
 |||||
 RESULT 39
 AAE12434
 ID AAE12434 standard; peptide; 32 AA.
 XX
 AC AAE12434;
 XX
 DT 03-JAN-2002 (first entry)
 XX
 DE Human brain natriuretic peptide (BNP).
 XX
 KW Prophylaxis; ischaemic heart disease; myocardial infarction; human;
 KW ischaemia reperfusion injury; ischaemic heart disease; infarct region;
 KW vasotropic; brain natriuretic peptide; BNP.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Disulfide-bond 10. .26
 XX
 PN US2001027181-A1.
 XX
 PD 04-OCT-2001.
 XX
 PF 03-JAN-2001; 2001US-00752724.

PR 31-MAR-2000; 2000JP-00098134.
 XX (KITA/) KITAKAZE M.
 XX
 XX Kitakaze M;
 XX WPI; 2001-638528/73.
 XX
 XX Composition for the treatment or prophylaxis of ischemic heart disease
 PT i.e. myocardial infarction, comprises a substance which can increase
 PT intracellular cGMP production by acting on a natriuretic peptide
 PT receptor.
 XX
 XX Disclosure; Page 4; 9pp; English.
 XX
 XX The invention relates to a pharmaceutical composition for the treatment
 CC or prophylaxis of ischaemic heart disease, comprises a substance as an
 CC active ingredient, which can increase intracellular cGMP production by
 CC acting on a natriuretic peptide receptor and which has an effect of
 CC reducing an infarct region. The composition is useful for suppressing
 CC ischaemia reperfusion injury in the treatment of ischaemic heart disease,
 CC preferably myocardial infarction. The present sequence is human brain
 CC natriuretic peptide (BNP)
 XX
 XX Sequence 32 AA;
 SQ
 Query Match 100.0%; Score 92; DB 4; Length 32;
 Best Local Similarity 100.0%; Pred. No. 1.7e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 DB 10 CFGRKMDRISSSSGLGC 26
 RESULT 40
 AAB70810
 ID AAB70810 standard; peptide; 32 AA.
 XX
 XX AAB70810;
 XX
 XX 08-JUN-2001 (first entry)
 DT
 XX Human natriuretic peptide BNP.
 DE
 XX Natriuretic peptide; BNP; antibiotic; veterinary; medicine; skin;
 KW food technology; natriuretic; bacterial flora; gastrointestinal tract;
 KW respiratory system; urogenital system; adjuvant; fermentation; human;
 KW preservatives; dermatological; antiinflammatory; antidiarrheic; brain;
 KW antibiotic; infant diarrhoea; skin disorder.
 XX
 XX Homo sapiens.
 OS
 XX DE19942230-A1.
 PN
 XX 15-MAR-2001.
 PD
 XX 03-SEP-1999; 99DE-01042230.
 PF
 XX 03-SEP-1999; 99DE-01042230.
 PR
 XX (FORS/) FORSSMANN W.
 PA
 XX Krause A, Maronde E, Forssmann W;
 PI
 XX WPI; 2001-258920/27.
 DR
 XX Use of natriuretic peptides as antibiotics in medicine and food
 PT technology.
 PT
 XX Disclosure; Col 2-3; 4pp; German.
 PS
 XX This invention describes a novel use of natriuretic peptides as

CC antibiotics in human and veterinary medicine and in food technology. Pure
 CC natriuretic peptides (natriuretics) are used as antibiotics: (a) or the
 CC treatment of pathogenically altered bacterial flora in the
 CC gastrointestinal tract, respiratory or urogenital system or skin; and (b)
 CC in food technology as adjuvants in fermentation processes and
 CC preservatives. The products of the invention have dermatological,
 CC antiinflammatory, antidiarrheic and antibiotic activity. The peptides
 CC improve the bacterial flora of the body and can be used for the control
 CC of diarrhoea, especially in infants, as well as intestinal, respiratory
 CC tract, urogenital and skin infections. They are preferably used for the
 CC treatment of skin disorders caused by microbes and problems caused by
 CC abnormal human vaginal flora. They are also useful as preservatives in
 CC foodstuffs, especially those which have been produced by fermentation.
 CC This sequence represents the human BNP peptide used in the method of the
 CC invention
 XX
 XX Sequence 32 AA;
 SQ
 Query Match 100.0%; Score 92; DB 4; Length 32;
 Best Local Similarity 100.0%; Pred. No. 1.7e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 DB 10 CFGRKMDRISSSSGLGC 26
 RESULT 41
 ABG98205
 ID ABG98205 standard; peptide; 32 AA.
 XX
 XX ABG98205;
 AC
 XX 08-JAN-2003 (first entry)
 DT
 XX Human brain natriuretic peptide (BNP-32).
 DE
 XX Human; natriuretic peptide; NP; endochondral ossification;
 KW bone formation; cartilage; bone; signalling pathway; FGF;
 KW fibroblast growth factor; cardiovascular homeostasis; diuresis;
 KW natriuresis; vasodilation; atrial natriuretic peptide; ANP;
 KW brain natriuretic peptide; BNP; C-type natriuretic peptide; CNP;
 KW dendroaspis natriuretic peptide; DNP; NPR-A; NPR-B;
 KW guanylyl cyclase domain; cGMP; neutral endopeptidase; NEP;
 KW skeletal dysplasia; achondroplasia; osteopathic.
 XX
 XX Homo sapiens.
 OS
 XX WO200274234-A2.
 PN
 XX 26-SEP-2002.
 PD
 XX 20-MAR-2002; 2002WO-IL000229.
 PF
 XX 20-MAR-2001; 2001IL-00142118.
 PR
 XX 20-MAR-2001; 2001US-0276939P.
 PD
 XX (PROC-) PROCHON BIOTECH LTD.
 PA
 XX Golembo M, Yayon A;
 PI
 XX WPI; 2002-750515/81.
 DR
 XX Pharmaceutical composition useful in the treatment of skeletal dysplasias
 PT e.g. achondroplasia comprises at least one natriuretic peptide.
 PT
 XX Claim 4; Fig 3; 41pp; English.
 PS
 XX The invention discloses a pharmaceutical composition comprising at least
 CC one natriuretic peptide (NP), or its variant, and a carrier or excipient.
 CC Endochondral ossification is a fundamental mechanism for bone formation,
 CC whereby cartilage is replaced by bone. Endochondral ossification is the
 CC result of the concerted action of several signalling pathways, most

CC notably the pathway triggered by the activation of the fibroblast growth
 CC factor (FGF). Natriuretic peptides are also known for their role in
 CC cardiovascular homeostasis, diuresis, natriuresis and vasodilation. Four
 CC isoforms exist - atrial natriuretic peptide (ANP), brain natriuretic
 CC peptide (BNP), C-type natriuretic peptide (CNP) and the dendroaspis
 CC natriuretic peptide (DNP). NP's effect their biological role through two
 CC receptors, NPR-A and NPR-B, having cytoplasmic guanylyl cyclase domains
 CC which are activated upon ligand binding and lead to accumulation of
 CC intracellular cGMP. They are cleaved by neutral endopeptidases (NEPs) and
 CC inhibition of the NEPs increases the concentration of the NPs in the
 CC circulation. The invention discloses compositions comprising NP secreting
 CC cells and methods for treating skeletal dysplasias involving
 CC transplanting or implanting the natriuretic peptide secreting cells. The
 CC NP secreting cells are useful in the manufacture of a medicament for the
 CC treatment of skeletal dysplasia (e.g. achondroplasia), for elongation of
 CC abnormal bone and for increasing the size of bone growth plate in
 CC abnormal bone (e.g. limb bone). The compositions induce bone elongation
 CC in abnormal bone growth and enhance NP stabilisation in circulation. The
 CC sequences presented in ABG98202-ABG98272 are the CNP peptide and
 CC variants, with differing levels of activity, designed from it. The
 CC degenerate peptide is presented in ABG98206
 XX

SQ Sequence 32 AA;

Query Match 100.0%; Score 92; DB 5; Length 32;
 Best Local Similarity 100.0%; Pred. No. 1.7e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSLGCG 17
 |||||
 Db 10 CFGRKMDRISSSSLGCG 26

RESULT 42

ADA00765
 ID ADA00765 standard; peptide; 32 AA.

AC ADA00765;

DT 06-NOV-2003 (first entry)

DE Human natriuretic peptide BNP.

XX Human; natriuretic protein; atrial natriuretic peptide; ANP; ANF;
 KW hypotensive; hepatotropic; nephrotropic; cardiac; vasodilator;
 KW hepatotropic; respiratory; clearance receptor;
 KW natriuretic peptide receptor; hNPR-C; hANP (1-28); human A receptor;
 KW hNPR-A; neutral endopeptidase 11.24; NEP; natriuresis; diuresis;
 KW vasodilation; renin-angiotensin II; aldosterone; electrolyte imbalance;
 KW hypertension; renovascular hypertension; congestive heart failure; CHF;
 KW nephrotic syndrome; hepatic cirrhosis; pulmonary disease; renal failure;
 KW uroldatin.

XX Homo sapiens.

XX US6525022-B1.

PN 25-FEB-2003.

XX 16-SEP-1998; 98US-00154390.

XX 12-NOV-1993; 93US-00152994.

PR 04-NOV-1994; 94WO-US012591.

PR 06-JAN-1995; 95US-00362552.

PR 11-APR-1995; 95US-00419877.

PR 06-JUN-1995; 95US-00470846.

XX (GETH) GENENTECH INC.

XX Lowe DG, Cunningham BC, Oare D, McDowell RS, Burnier JP;

XX WPI; 2003-553629/52.

XX

PT Novel variant of atrial natriuretic factor, useful as therapeutic agent
 PT for treating hypertension, congestive heart failure, nephrotic syndrome,
 PT hepatic cirrhosis, pulmonary disease and renal failure.
 XX

PS Disclosure; Fig 1; 51pp; English.

XX The invention relates to an atrial natriuretic factor (ANF), also known as
 CC ANP, a natriuretic peptide) comprising one or more amino acid
 CC substitutions selected from Gly9Thr, Gly9Arg, Gly9Ser, Arg11Asp,
 CC Gly16Arg, Gly16Gly, Gly16Gln, Gly16His, and Gly16P-amidinophenyl Ala.
 CC Also included is a composition comprising nucleic acid encoding the ANP
 CC variant. The ANF has a decreased binding affinity for the human clearance
 CC receptor, natriuretic peptide receptor (hNPR)-C, compared to wild-type
 CC hANP (1-28) and an equal or higher binding affinity for the human A
 CC receptor, hNPR-A, compared to wild-type hANP (1-28). The binding affinity
 CC for hNPR-C is less than 50% or 10% of the affinity of wild-type ANF. The
 CC ANP variant has an increased half-life relative to wild-type hANP (1-28)
 CC when incubated with neutral endopeptidase 11.24 (NEP). The ANF variant is
 CC useful for inducing natriuresis, diuresis or vasodilation or inhibit
 CC renin-angiotensin II and aldosterone release and as therapeutic agents in
 CC the treatment of various pathological conditions associated with water or
 CC electrolyte imbalance and hypertension, especially renovascular
 CC hypertension, congestive heart failure (CHF), nephrotic syndrome and
 CC hepatic cirrhosis, pulmonary disease and renal failure due to ineffective
 CC renal perfusion or reduced glomerular filtration rate, to modulate the
 CC activity of other diuretic, natriuretic or vasorelaxant compounds by
 CC binding to alternate receptors, stimulating receptor turnover, or
 CC providing alternate substrates for degradative enzyme of receptor
 CC activity and inhibiting these enzymes or receptors. The present sequence
 CC is a human natriuretic peptide.
 XX

SQ Sequence 32 AA;

Query Match 100.0%; Score 92; DB 6; Length 32;
 Best Local Similarity 100.0%; Pred. No. 1.7e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSLGCG 17
 |||||
 Db 10 CFGRKMDRISSSSLGCG 26

RESULT 43

ADA00784

ID ADA00784 standard; peptide; 32 AA.

XX ADA00784;

DT 06-NOV-2003 (first entry)

DE Human natriuretic peptide BNP 1-28.

XX Human; natriuretic protein; atrial natriuretic peptide; ANP; ANF;
 KW hypotensive; hepatotropic; nephrotropic; cardiac; vasodilator;
 KW hepatotropic; respiratory; clearance receptor;
 KW natriuretic peptide receptor; hNPR-C; hANP (1-28); human A receptor;
 KW hNPR-A; neutral endopeptidase 11.24; NEP; natriuresis; diuresis;
 KW vasodilation; renin-angiotensin II; aldosterone; electrolyte imbalance;
 KW hypertension; renovascular hypertension; congestive heart failure; CHF;
 KW nephrotic syndrome; hepatic cirrhosis; pulmonary disease; renal failure;
 KW mutant; mutein.

XX Synthetic.

OS Homo sapiens.

XX US6525022-B1.

PN 25-FEB-2003.

XX 16-SEP-1998; 98US-00154390.

XX 12-NOV-1993; 93US-00152994.

PR 04-NOV-1994; 94WO-US012591.

PR 06-JAN-1995; 95US-00362552.
 PR 11-APR-1995; 95US-00419877.
 PR 06-JUN-1995; 95US-00470846.
 XX (GETH) GENENTECH INC.
 PA
 XX Lowe DG, Cunningham BC, Oare D, McDowell RS, Burnier JP;
 PI WPI; 2003-553629/52.
 DR
 XX Novel variant of atrial natriuretic factor, useful as therapeutic agent
 PT for treating hypertension, congestive heart failure, nephrotic syndrome,
 PT hepatic cirrhosis, pulmonary disease and renal failure.
 XX
 PS Disclosure; Col 7; Sipp; English.
 XX
 CC The invention relates to an atrial natriuretic factor (ANF, also known as
 CC ANP, a natriuretic peptide) comprising one or more amino acid
 CC substitutions selected from Gly9Thr, Gly9Arg, Gly9Ser, Arg11Asp,
 CC Gly16Arg, Gly16Lys, Gly16Orn, Gly16His, and Gly16p-amidinophenyl Ala.
 CC Also included is a composition comprising nucleic acid encoding the ANF
 CC variant. The ANF has a decreased binding affinity for the human clearance
 CC receptor. Natriuretic peptide receptor (NPR)-C, compared to wild-type
 CC hANF(1-28) and an equal or higher binding affinity for the human A
 CC receptor, NPR-A, compared to wild-type hANF(1-28). The binding affinity
 CC for NPR-C is less than 50% or 10% of the affinity of wild-type ANF. The
 CC ANF variant has an increased half-life relative to wild-type hANF(1-28)
 CC when incubated with neutral endopeptidase 11.24 (NEP). The ANF variant is
 CC useful for inducing natriuresis, diuresis or vasodilation or inhibit
 CC renin-angiotensin II and aldosterone release and as therapeutic agents in
 CC the treatment of various pathological conditions associated with water or
 CC electrolyte imbalance and hypertension, especially renovascular
 CC hypertension, congestive heart failure (CHF), nephrotic syndrome and
 CC hepatic cirrhosis, pulmonary disease and renal failure due to ineffective
 CC renal perfusion or reduced glomerular filtration rate, to modulate the
 CC activity of other diuretic, natriuretic or vasorelaxant compounds by
 CC binding to alternate receptors, stimulating receptor turnover, or
 CC providing alternate substrates for degradative enzyme of receptor
 CC activity and inhibiting these enzymes or receptors. The present sequence
 CC is the an ANF variant/mutant of the invention.
 XX
 XX Sequence 32 AA;
 SQ
 Query Match 100.0%; Score 92; DB 6; Length 32;
 Best Local Similarity 100.0%; Pred. No. 1.7e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 DB 10 CFGRKMDRISSSSGLGC 26
 |||||
 RESULT 44
 ABU63215
 ID ABU63215 standard; peptide; 32 AA.
 AC
 XX ABU63215;
 XX
 DT 15-OCT-2003 (first entry)
 XX
 DE Human brain natriuretic peptide (BNP).
 XX
 KW Natriuretic; renin-suppressing; diuretic; vasodilator; heart failure;
 KW cardiovascular disorder; congestive heart failure; hypertension;
 KW acute kidney failure; chronic kidney failure; liver cirrhosis;
 KW nephrotic syndrome; oedematous state; cardiant; BNP; human;
 KW brain natriuretic peptide.
 XX
 OS Homo sapiens.
 XX
 XX US2003069186-A1.
 PN
 XX 10-APR-2003.
 PD

XX 26-MAR-2002; 2002US-00106806.
 PF
 XX 17-DEC-1999; 99US-00466268.
 PR
 XX (BURN/) BURNETT J C.
 PA (LISY/) LISY O.
 PA
 XX Burnett JC, Lisy O;
 PI WPI; 2003-576433/54.
 DR
 XX Novel peptide compound useful for treating or preventing cardiovascular
 PT disorders e.g. congestive heart failure, has natriuretic, renin-
 PT suppressing, diuretic and/or vasodilator activity in mammals.
 XX
 PS Disclosure; Fig 1; 43pp; English.
 XX
 CC The present invention relates to chimeric peptides having natriuretic,
 CC renin-suppressing, diuretic and/or vasodilator activity in mammals. The
 CC peptides of the invention are useful for treating heart failure in a
 CC mammal e.g. human, rat, mouse, canine, bovine, equine, ovine, caprine or
 CC feline. They are useful for treating and preventing cardiovascular
 CC disorders e.g. congestive heart failure, acute or chronic kidney failure,
 CC hypertension, cirrhosis of liver, nephrotic syndrome and other oedematous
 CC states. The present sequence represents human brain natriuretic peptide
 CC (BNP)
 XX
 SQ Sequence 32 AA;
 Query Match 100.0%; Score 92; DB 6; Length 32;
 Best Local Similarity 100.0%; Pred. No. 1.7e-07;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 DB 10 CFGRKMDRISSSSGLGC 26
 |||||
 RESULT 45
 ADD55931
 ID ADD55931 standard; peptide; 32 AA.
 XX
 AC ADD55931;
 XX
 DT 15-JAN-2004 (first entry)
 XX
 DE Human B-type natriuretic peptide (BNP).
 XX
 KW human; congestive heart failure; CHF; natriuretic peptide;
 KW B-type natriuretic peptide; BNP.
 XX
 OS Homo sapiens.
 XX
 XX Key Location/Qualifiers
 FH Disulfide-bond 10..26
 FT
 XX WO2003079979-A2.
 PN
 XX 02-OCT-2003.
 PD
 XX 18-MAR-2003; 2003WO-US008215.
 PF
 XX 18-MAR-2002; 2002US-0364736P.
 PR
 XX (SCIO-) SCIOS INC.
 PA
 XX Schreiner GF;
 PI WPI; 2003-767771/72.
 XX
 XX Treating congestive heart failure (CHF) in a mammal, comprises
 PT administration of a natriuretic peptide.
 PT

XX Disclosure; SEQ ID NO 1; 58pp; English.

XX The invention comprises a method for treating congestive heart failure (CHF), the method involves administering a natriuretic peptide (e.g. human B-type natriuretic peptide). The method is useful for treating congestive heart failure in a mammal that is in a compensated or decompensated state of congestive heart failure. The present amino acid sequence represents the human B-type natriuretic peptide (BNP).

XX Sequence 32 AA;

Query Match 100.0%; Score 92; DB 7; Length 32;
Best Local Similarity 100.0%; Pred. No. 1.7e-07;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 46

ADD93296

ID ADD93296 standard; protein; 32 AA.

AC ADD93296;

XX 29-JAN-2004 (first entry)

XX Human active BNP.

XX prepro; B-type natriuretic peptide; BNP; precursor;
KW cardiac natriuretic peptide; diuretic; vasodilatory; endocrine function;
KW myocyte; heart; congestive heart failure; left ventricle; heart failure;
KW cardiac failure; myocardial infarction;
KW arhythmogenic right ventricular dysplasia; chronic respiratory disease;
KW tuberculosis; congenital heart disease;
KW obstructive hypertrophic cardiomyopathy; mortality;
KW cardiac related acute dyspnea.

XX Homo sapiens.

XX WO2003087819-A1.

XX 23-OCT-2003.

XX 11-APR-2003; 2003WO-DK000250.

XX 11-APR-2002; 2002AU-00001692.

XX (RIGS-) RIGSHOSPITAL.

XX (UYCO-) UNIV COPENHAGEN.

XX Gotze JP, Rehfeld JF;
XX WPI; 2003-833796/77.

XX Determining the concentration of BNP precursors with antibodies binding to its cleaved product, useful for predicting or diagnosing a cardiac dysfunction, such as congestive heart failure and myocardial infarction.

XX Disclosure; SEQ ID NO 4; 56pp; English.

XX This sequence represents human active B-type natriuretic peptide (BNP).

XX Human BNP is a member of the cardiac natriuretic peptide family. It is 32 amino acids in length with potent natriuretic, diuretic and vasodilatory endocrine functions. It is primarily expressed in the myocytes of the failing heart with BNP increasingly being secreted in to the circulation of patients with congestive heart failure. Increased plasma levels of BNP are associated with impaired function of the left ventricle disregarding the underlying cause and is therefore important in the primary diagnosis of heart failure. The method of the invention for determining the concentration of a BNP precursor, or its fragments, in a sample obtained

CC from a mammal, comprises treating the sample with an agent that cleaves the BNP precursor, and exposing the sample to an antibody that specifically binds to the cleaved product. The elevated level of antibody binding levels in any of the methods cited above is above 15 pmol/L. The methods and compositions of the present invention are useful for predicting or diagnosing a cardiac disease or dysfunction, such as congestive heart failure, impaired function of the left ventricle, cardiac failure after myocardial infarction, arrhythmogenic right ventricular dysplasia, chronic respiratory disease due to tuberculosis, congenital heart disease, obstructive hypertrophic cardiomyopathy, and in predicting mortality in elderly and cardiac related acute dyspnea.

XX Sequence 32 AA;

Query Match 100.0%; Score 92; DB 7; Length 32;
Best Local Similarity 100.0%; Pred. No. 1.7e-07;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 47

ADFI6700

ID ADFI6700 standard; protein; 32 AA.

XX ADFI6700;

XX 12-FEB-2004 (first entry)

XX Human albumin fusion protein-related protein SeqID1802.

XX albumin fusion protein; albumin activity; human serum albumin;
KW serum osmotic pressure; shelf-life; stability; antidiabetic;
KW gene therapy; diabetes mellitus; human; gene; ds.

XX Homo sapiens.

XX WO2003060071-A2.

XX 24-JUL-2003.

XX 23-DEC-2002; 2002WO-US040891.

XX 21-DEC-2001; 2001US-0341811P.

XX 24-JAN-2002; 2002US-0350358P.

XX 28-JAN-2002; 2002US-0351360P.

XX 26-FEB-2002; 2002US-0359370P.

XX 28-FEB-2002; 2002US-0360000P.

XX 27-MAR-2002; 2002US-0367500P.

XX 08-APR-2002; 2002US-0370227P.

XX 10-MAY-2002; 2002US-0378950P.

XX 24-MAY-2002; 2002US-0382617P.

XX 28-MAY-2002; 2002US-0383123P.

XX 05-JUN-2002; 2002US-0385708P.

XX 10-JUL-2002; 2002US-0394625P.

XX 24-JUL-2002; 2002US-0398008P.

XX 09-AUG-2002; 2002US-0402131P.

XX 13-AUG-2002; 2002US-0402708P.

XX 18-SEP-2002; 2002US-0411355P.

XX 02-OCT-2002; 2002US-0411426P.

XX 11-OCT-2002; 2002US-0417611P.

XX 23-OCT-2002; 2002US-0420246P.

XX 05-NOV-2002; 2002US-0423623P.

XX (HUMA-) HUMAN GENOME SCI INC.
XX (DELZ) DELTA BIOTECHNOLOGY LTD.
XX (PRIN-) PRINCIPIA PHARM CORP.

XX Ballance DU, Turner AJ, Rosen CA, Haseltine WA;
XX

DR WPI; 2003-598517/56.
DR N-PSDB; ADF16374.
XX
PT New albumin fusion protein, useful for preparing a composition for
PT treating diabetes mellitus.
XX
PS Example 4; SEQ ID NO 1802; 24pp; English.
XX
CC This invention relates to a novel albumin fusion protein having albumin
CC or biological activity. Human serum albumin is responsible for a
CC significant proportion of the osmotic pressure of serum and also
CC functions as a carrier of endogenous and exogenous ligands. The fusion of
CC albumin to a therapeutic protein may increase shelf-life and stability of
CC the therapeutic protein. The albumin fusion protein of the invention may
CC allow production of compositions with antidiabetic activity whilst the
CC nucleotide sequence which encodes it may be useful for gene therapy. The
CC albumin fusion protein is useful for preparing a composition for treating
CC diabetes mellitus. The present sequence is that of a therapeutic protein
CC which was fused with human albumin to create a novel albumin fusion
CC protein of the invention. Note: The sequence data for this patent did not
CC form part of the printed specification, but was obtained in electronic
CC format directly from WIPO at ftp.wipo.int/pub/publishedpct_sequences
XX
SQ Sequence 32 AA;

Query Match 100.0%; Score 92; DB 7; Length 32;
Best Local Similarity 100.0%; Pred. No. 1.7e-07;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 48
ADJ79634
ID ADJ79634 standard; peptide; 32 AA.
XX
AC ADJ79634;
XX
DT 06-MAY-2004 (first entry)
XX
DE Human Brain Natriuretic Peptide, proBNP(77-108).
XX
KW proBNP(1-108); BNP; Brain Natriuretic Peptide; congestive heart failure;
KW proBNP(77-108).
XX
OS Homo sapiens.
XX
PN WO2004014952-A2.
XX
PD 19-FEB-2004.
XX
PF 07-AUG-2003; 2003WO-FR002483.
XX
PR 07-AUG-2002; 2002FR-00010063.
XX
PA (BIRA) BIO-RAD PASTEUR.
PA (CNRS) CNRS CENT NAT RECH SCI.
PA (UYMO-) UNIV MONTPELLIER I.
XX
PI Pau B, Giuliani I, Rieunier F;
XX
XX WPI; 2004-191735/18.
XX
XX New antibodies against pro-brain natriuretic peptide, useful for early
PT diagnosis of congestive heart failure, also new peptides as immunogens.
PT
XX
PS Disclosure; SEQ ID NO 2; 120pp; French.
XX
CC The present invention relates to antibodies directed against proBNP(1-
CC 108) (ADJ79633, where, BNP is Brain Natriuretic Peptide). The antibodies
CC provide a simple and reliable method for early detection of congestive

CC heart failure, suitable for routine use and so are useful for in vitro
CC diagnosis of congestive heart failure in humans. The present sequence is
CC a peptide fragment of proBNP(1-108).
XX
SQ Sequence 32 AA;

Query Match 100.0%; Score 92; DB 8; Length 32;
Best Local Similarity 100.0%; Pred. No. 1.7e-07;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 49
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ID ADL22384 standard; peptide; 32 AA.
XX
AC ADL22384;
XX
DT 20-MAY-2004 (first entry)
XX
DE Natriuretic peptide, SEQ ID No 54.
XX
KW natriuretic peptide; NP; blood; cardiant; hypotensive; antiasthmatic;
KW antiinflammatory; vasotropic; antilipaeamic; nephrotropic;
KW congestive heart failure; hypertension; asthma; inflammation;
KW erectile dysfunction; hypercholesterolaemia; renal disorder.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 1 /note= "Residue modified by MPA-AEBA"
FT Disulfide-bond 10. .26
FT Modified-site 32 /note= "C-terminal amide"
FT
XX
PN WO2004011498-A2.
XX
PD 05-FEB-2004.
XX
PF 29-JUL-2003; 2003WO-CA001097.
XX
PR 31-JUL-2002; 2002US-0400199P.
PR 31-JUL-2002; 2002US-0400413P.
XX
PA (CONJ-) CONJUCHEM INC.
XX
PI Bridon DP, Bakis P, Carrette J, Leclaire F, Leger R, Robitaille M;
XX
XX WPI; 2004-143823/14.
XX
DR New natriuretic peptide (NP) derivatives having a NP peptide and a
PT reactive entity, useful for the treatment of congestive heart failure,
PT hypertension, asthma, inflammation, hypercholesterolemia and renal
PT disorders.
XX
PS Claim 9; SEQ ID NO 54; 108pp; English.
XX
CC The invention relates to a novel long lasting natriuretic peptide (NP)
CC derivative. The NP derivative comprises an NP peptide, having a 33 amino
CC acid sequence, given in the specification, and a reactive entity coupled
CC to the NP peptide, the reactive entity being capable of covalently
CC bonding with a functionality on a blood component. The NP peptide has an
CC extended in vivo half-life. The natriuretic peptide has the following
CC activities: cardiant, hypotensive, antiasthmatic, antiinflammatory,
CC vasotropic, antilipaeamic, and nephrotropic. The methods and compositions
CC of the present invention are useful for the treatment of congestive heart
CC failure, hypertension, asthma, inflammation, erectile dysfunction, a
CC hypercholesterolaemia and renal disorders. This sequence represents a
CC natriuretic peptide of the invention.

XX Sequence 32 AA;
SQ Query Match 100.0%; Score 92; DB 8; Length 32;
Best Local Similarity 100.0%; Pred. No. 1.7e-07;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
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Db 10 CFGRKMDRISSSSGLGC 26

Search completed: January 25, 2006, 18:46:21
Job time : 94 secs

Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
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Db 10 CFGRKMDRISSSSGLGC 26

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XX
AC ADL22351;
DT 20-MAY-2004 (first entry)
XX
DE Natriuretic peptide, SEQ ID No 21.
XX
KW natriuretic peptide; NP; blood; cardiatic; hypotensive; antiasthmatic;
KW antiinflammatory; vasotropic; antilipaeamic; nephrotropic;
KW congestive heart failure; hypertension; asthma; inflammation;
KW erectile dysfunction; hypercholesterolaemia; renal disorder.
XX
OS Synthetic.
XX
XX Key Location/Qualifiers
FH Disulfide-bond 10..26
FT Modified-site 32 /note= "C-terminal amide"
FT
XX
XX WO2004011498-A2.
XX
XX 05-FEB-2004.
XX
XX 29-JUL-2003; 2003WO-CA001097.
XX
XX 31-JUL-2002; 2002US-0400199P.
XX 31-JUL-2002; 2002US-0400413P.
XX
XX (CONJ-) CONJUCHEM INC.
XX
XX Bridon DP, Bakis P, Carrette J, Leclaire F, Leger R, Robitaille M;
XX WPI; 2004-143823/14.
XX
XX New natriuretic peptide (NP) derivatives having a NP peptide and a
XX reactive entity, useful for the treatment of congestive heart failure,
XX hypertension, asthma, inflammation, hypercholesterolemia and renal
XX disorders.
XX
XX Claim 8; SEQ ID NO 21; 108pp; English.
XX
XX The invention relates to a novel long lasting natriuretic peptide (NP)
XX derivative. The NP derivative comprises an NP peptide, having a 33 amino
XX acid sequence, given in the specification, and a reactive entity coupled
XX to the NP peptide, the reactive entity being capable of covalently
XX bonding with a functionality on a blood component. The NP peptide has an
XX extended in vivo half-life. The natriuretic peptide has the following
XX activities: cardiatic, hypotensive, antiasthmatic, antiinflammatory,
XX vasotropic, antilipaeamic, and nephrotropic. The methods and compositions
XX of the present invention are useful for the treatment of congestive heart
XX failure, hypertension, asthma, inflammation, erectile dysfunction,
XX hypercholesterolaemia and renal disorders. This sequence represents a
XX natriuretic peptide of the invention.
XX
XX Sequence 32 AA;
SQ Query Match 100.0%; Score 92; DB 8; Length 32;
Best Local Similarity 100.0%; Pred. No. 1.7e-07;

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 25, 2006, 18:46:28 ; Search time 8 Seconds
(without alignments)
23.012 Million cell updates/sec

Title: US-10-737-290-172

Perfect score: 92

Sequence: 1 CPGKMDRISSSGLGC 17

Scoring table:

Gapop 10.0 , Gapext 0.5

Searched: 75621 seqs, 10829074 residues

Total number of hits satisfying chosen parameters: 75621

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 1000 summaries

Database :

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- 2: /cgn2_6/prodata/2/pubpaa/US06_NEW_PUB.pep.*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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| 5 | 92 | 100.0 | 28 | 7 | US-11-175-690-369 |
| 6 | 92 | 100.0 | 29 | 7 | US-11-175-690-314 |
| 7 | 92 | 100.0 | 29 | 7 | US-11-175-690-315 |
| 8 | 92 | 100.0 | 32 | 6 | US-10-510-880-4 |
| 9 | 92 | 100.0 | 32 | 6 | US-10-977-334-3 |
| 10 | 92 | 100.0 | 32 | 7 | US-11-043-590-17 |
| 11 | 92 | 100.0 | 32 | 7 | US-11-175-690-288 |
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| 13 | 92 | 100.0 | 32 | 7 | US-11-175-690-304 |
| 14 | 92 | 100.0 | 32 | 7 | US-11-175-690-317 |
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| 16 | 92 | 100.0 | 32 | 7 | US-11-175-690-370 |
| 17 | 92 | 100.0 | 42 | 7 | US-11-043-590-15 |
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| 19 | 92 | 100.0 | 60 | 7 | US-11-043-590-16 |
| 20 | 92 | 100.0 | 108 | 6 | US-10-510-880-5 |
| 21 | 92 | 100.0 | 108 | 6 | US-10-875-800-1 |
| 22 | 92 | 100.0 | 108 | 6 | US-10-299-977-1 |
| 23 | 92 | 100.0 | 134 | 6 | US-10-510-880-1 |
| 24 | 92 | 100.0 | 134 | 6 | US-10-875-800-2 |
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| 29 | 92 | 100.0 | 632 | 7 | US-11-175-690-236 | Sequence 236, App |
| 30 | 92 | 100.0 | 633 | 7 | US-11-175-690-228 | Sequence 228, App |
| 31 | 92 | 100.0 | 641 | 7 | US-11-175-690-211 | Sequence 211, App |
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| 36 | 92 | 100.0 | 667 | 7 | US-11-175-690-227 | Sequence 227, App |
| 37 | 92 | 100.0 | 670 | 7 | US-11-175-690-283 | Sequence 283, App |
| 38 | 92 | 100.0 | 673 | 7 | US-11-175-690-201 | Sequence 201, App |
| 39 | 92 | 100.0 | 673 | 7 | US-11-175-690-217 | Sequence 217, App |
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| 45 | 71 | 77.2 | 28 | 7 | US-11-112-277-51 | Sequence 51, Appl |
| 46 | 71 | 77.2 | 28 | 7 | US-11-059-814-4 | Sequence 4, Appli |
| 47 | 71 | 77.2 | 28 | 7 | US-11-175-690-309 | Sequence 309, App |
| 48 | 71 | 77.2 | 151 | 7 | US-11-059-814-7 | Sequence 7, Appli |
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| 56 | 40 | 43.5 | 4868 | 7 | US-11-044-111-24 | Sequence 24, Appl |
| 57 | 38 | 41.3 | 371 | 6 | US-10-821-234-1010 | Sequence 1010, Ap |
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| 62 | 37 | 40.2 | 237 | 7 | US-11-044-111-12 | Sequence 12, Appl |
| 63 | 37 | 40.2 | 239 | 7 | US-11-044-111-5 | Sequence 5, Appli |
| 64 | 37 | 40.2 | 239 | 7 | US-11-044-111-25 | Sequence 25, Appl |
| 65 | 37 | 40.2 | 240 | 7 | US-11-044-111-9 | Sequence 9, Appli |
| 66 | 37 | 40.2 | 240 | 7 | US-11-044-111-10 | Sequence 10, Appl |
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| 75 | 36 | 39.1 | 45 | 6 | US-10-957-887B-41 | Sequence 41, Appl |
| 76 | 36 | 39.1 | 299 | 6 | US-10-467-657-4424 | Sequence 4424, Ap |
| 77 | 36 | 39.1 | 770 | 6 | US-10-821-234-1269 | Sequence 1269, Ap |
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| 79 | 35 | 38.0 | 339 | 6 | US-10-467-657-4318 | Sequence 4318, Ap |
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| 81 | 35 | 38.0 | 399 | 7 | US-11-047-757-3 | Sequence 3, Appli |
| 82 | 35 | 38.0 | 399 | 7 | US-11-166-892-19 | Sequence 19, Appl |
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| 90 | 34 | 37.0 | 91 | 7 | US-11-053-076-203 | Sequence 203, App |
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| 108 | 33 | 35.9 | 513 | 7 | US-11-149-349-6 | Sequence 6, Appli | 181 | 31 | 33.7 | 168 | 7 | US-11-010-874-7 | Sequence 7, Appli |
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| 110 | 33 | 35.9 | 696 | 6 | US-10-453-372-324 | Sequence 324, App | 183 | 31 | 33.7 | 191 | 6 | US-10-519-390-23 | Sequence 23, Appl |
| 111 | 33 | 35.9 | 696 | 6 | US-10-453-372-336 | Sequence 336, App | 184 | 31 | 33.7 | 191 | 7 | US-11-033-365-160 | Sequence 160, App |
| 112 | 33 | 35.9 | 696 | 6 | US-10-453-372-346 | Sequence 346, App | 185 | 31 | 33.7 | 192 | 7 | US-11-033-365-159 | Sequence 159, App |
| 113 | 33 | 35.9 | 696 | 6 | US-10-453-372-354 | Sequence 354, App | 186 | 31 | 33.7 | 192 | 7 | US-11-033-365-197 | Sequence 197, App |
| 114 | 33 | 35.9 | 696 | 6 | US-10-453-372-356 | Sequence 356, App | 187 | 31 | 33.7 | 192 | 7 | US-11-033-365-198 | Sequence 198, App |
| 115 | 33 | 35.9 | 696 | 6 | US-10-453-372-358 | Sequence 358, App | 188 | 31 | 33.7 | 192 | 7 | US-11-033-365-200 | Sequence 200, App |
| 116 | 33 | 35.9 | 696 | 6 | US-10-453-372-360 | Sequence 360, App | 189 | 31 | 33.7 | 192 | 7 | US-11-187-522-1 | Sequence 1, Appli |
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| 118 | 33 | 35.9 | 696 | 6 | US-10-453-372-364 | Sequence 364, App | 191 | 31 | 33.7 | 193 | 7 | US-11-033-365-196 | Sequence 196, App |
| 119 | 33 | 35.9 | 696 | 6 | US-10-453-372-366 | Sequence 366, App | 192 | 31 | 33.7 | 196 | 7 | US-11-033-365-199 | Sequence 199, App |
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| 124 | 33 | 35.9 | 757 | 6 | US-10-453-372-350 | Sequence 350, App | 197 | 31 | 33.7 | 251 | 7 | US-11-054-515-1171 | Sequence 1171, Ap |
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| 133 | 33 | 35.9 | 3712 | 7 | US-11-019-711-48 | Sequence 48, Appl | 206 | 31 | 33.7 | 289 | 6 | US-10-954-468-19 | Sequence 19, Appl |
| 134 | 33 | 35.9 | 3712 | 7 | US-11-019-711-51 | Sequence 51, Appl | 207 | 31 | 33.7 | 289 | 6 | US-10-954-468-21 | Sequence 21, Appl |
| 135 | 33 | 35.9 | 5405 | 7 | US-11-019-711-57 | Sequence 57, Appl | 208 | 31 | 33.7 | 290 | 6 | US-10-954-468-18 | Sequence 18, Appl |
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| 137 | 32.5 | 35.3 | 2766 | 6 | US-10-877-346-62 | Sequence 62, Appl | 210 | 31 | 33.7 | 292 | 7 | US-11-092-140-32 | Sequence 32, Appl |
| 138 | 32 | 34.8 | 117 | 7 | US-11-121-438-30 | Sequence 30, Appl | 211 | 31 | 33.7 | 293 | 6 | US-10-954-468-14 | Sequence 14, Appl |
| 139 | 32 | 34.8 | 157 | 6 | US-10-793-626-3268 | Sequence 3268, Ap | 212 | 31 | 33.7 | 302 | 6 | US-10-467-657-5794 | Sequence 5794, Ap |
| 140 | 32 | 34.8 | 214 | 7 | US-11-128-440-14 | Sequence 14, Appl | 213 | 31 | 33.7 | 306 | 7 | US-11-153-569-19 | Sequence 19, Appl |
| 141 | 32 | 34.8 | 222 | 6 | US-10-714-887-366 | Sequence 366, App | 214 | 31 | 33.7 | 331 | 6 | US-10-467-962B-61 | Sequence 61, Appl |
| 142 | 32 | 34.8 | 266 | 7 | US-11-194-564-65 | Sequence 65, App | 215 | 31 | 33.7 | 339 | 7 | US-11-010-874-2 | Sequence 2, Appli |
| 143 | 32 | 34.8 | 310 | 7 | US-11-055-163-9 | Sequence 9, Appli | 216 | 31 | 33.7 | 359 | 7 | US-11-108-528-62 | Sequence 62, Appl |
| 144 | 32 | 34.8 | 344 | 6 | US-11-055-163-8 | Sequence 8, Appli | 217 | 31 | 33.7 | 373 | 6 | US-10-793-626-372 | Sequence 372, App |
| 145 | 32 | 34.8 | 404 | 6 | US-10-497-135-3 | Sequence 3, Appli | 218 | 31 | 33.7 | 401 | 6 | US-10-821-234-881 | Sequence 881, App |
| 146 | 32 | 34.8 | 404 | 6 | US-10-497-135-4 | Sequence 4, Appli | 219 | 31 | 33.7 | 408 | 7 | US-11-052-554A-383 | Sequence 383, App |
| 147 | 32 | 34.8 | 413 | 6 | US-10-467-657-1858 | Sequence 1858, Ap | 220 | 31 | 33.7 | 410 | 6 | US-10-995-561-969 | Sequence 969, App |
| 148 | 32 | 34.8 | 437 | 6 | US-10-131-826A-466 | Sequence 466, App | 221 | 31 | 33.7 | 412 | 7 | US-11-093-808-1 | Sequence 1, Appli |
| 149 | 32 | 34.8 | 510 | 7 | US-11-087-100-26 | Sequence 26, Appl | 222 | 31 | 33.7 | 412 | 7 | US-11-093-808-7 | Sequence 7, Appli |
| 150 | 32 | 34.8 | 510 | 7 | US-11-087-084-26 | Sequence 26, Appl | 223 | 31 | 33.7 | 412 | 7 | US-11-093-808-8 | Sequence 8, Appli |
| 151 | 32 | 34.8 | 510 | 7 | US-11-087-085-26 | Sequence 26, Appl | 224 | 31 | 33.7 | 412 | 7 | US-11-093-808-9 | Sequence 9, Appli |
| 152 | 32 | 34.8 | 514 | 6 | US-10-055-877-226 | Sequence 226, App | 225 | 31 | 33.7 | 412 | 7 | US-11-093-808-10 | Sequence 10, Appl |
| 153 | 32 | 34.8 | 570 | 7 | US-11-113-424-69 | Sequence 69, Appl | 226 | 31 | 33.7 | 412 | 7 | US-11-093-808-11 | Sequence 11, Appl |
| 154 | 32 | 34.8 | 570 | 7 | US-11-113-424-71 | Sequence 71, Appl | 227 | 31 | 33.7 | 412 | 7 | US-11-093-808-12 | Sequence 12, Appl |
| 155 | 32 | 34.8 | 572 | 6 | US-10-878-556A-47 | Sequence 47, Appl | 228 | 31 | 33.7 | 412 | 7 | US-11-093-808-13 | Sequence 13, Appl |
| 156 | 32 | 34.8 | 620 | 7 | US-11-113-424-70 | Sequence 70, Appl | 229 | 31 | 33.7 | 412 | 7 | US-11-093-808-14 | Sequence 14, Appl |
| 157 | 32 | 34.8 | 715 | 7 | US-11-052-554A-290 | Sequence 290, App | 230 | 31 | 33.7 | 428 | 6 | US-10-632-150-6 | Sequence 6, Appli |
| 158 | 32 | 34.8 | 720 | 7 | US-11-113-424-28 | Sequence 28, Appl | 231 | 31 | 33.7 | 428 | 7 | US-11-073-457-6 | Sequence 6, Appli |
| 159 | 32 | 34.8 | 747 | 7 | US-11-113-424-26 | Sequence 26, Appl | 232 | 31 | 33.7 | 437 | 7 | US-11-073-460-6 | Sequence 6, Appli |
| 160 | 32 | 34.8 | 770 | 7 | US-11-024-959-358 | Sequence 358, App | 233 | 31 | 33.7 | 437 | 7 | US-11-088-634A-4 | Sequence 4, Appli |
| 161 | 32 | 34.8 | 794 | 6 | US-10-485-517-355 | Sequence 355, App | 234 | 31 | 33.7 | 444 | 7 | US-11-112-882-15 | Sequence 15, Appl |
| 162 | 32 | 34.8 | 1189 | 7 | US-11-074-176-134 | Sequence 134, App | 235 | 31 | 33.7 | 504 | 7 | US-11-087-100-32 | Sequence 32, Appl |
| 163 | 32 | 34.8 | 2059 | 7 | US-11-087-100-4 | Sequence 4, Appli | 236 | 31 | 33.7 | 504 | 7 | US-11-087-084-32 | Sequence 32, Appl |
| 164 | 32 | 34.8 | 2059 | 7 | US-11-087-084-4 | Sequence 4, Appli | 237 | 31 | 33.7 | 504 | 7 | US-11-087-085-32 | Sequence 32, Appl |
| 165 | 32 | 34.8 | 2059 | 7 | US-11-087-085-4 | Sequence 4, Appli | 238 | 31 | 33.7 | 515 | 6 | US-10-954-468-33 | Sequence 33, Appl |
| 166 | 32 | 34.8 | 2641 | 6 | US-10-877-346-63 | Sequence 63, Appl | 239 | 31 | 33.7 | 516 | 6 | US-10-954-468-32 | Sequence 32, Appl |
| 167 | 32 | 34.8 | 2811 | 6 | US-10-877-346-27 | Sequence 27, Appl | 240 | 31 | 33.7 | 517 | 6 | US-10-954-468-16 | Sequence 16, Appl |
| 168 | 32 | 34.8 | 2814 | 6 | US-10-877-346-25 | Sequence 25, Appl | 241 | 31 | 33.7 | 518 | 6 | US-10-954-468-31 | Sequence 31, Appl |
| 169 | 31.5 | 34.2 | 112 | 7 | US-11-000-463-754 | Sequence 754, App | 242 | 31 | 33.7 | 519 | 6 | US-10-954-468-30 | Sequence 30, Appl |
| 170 | 31.5 | 34.2 | 163 | 6 | US-10-467-657-5884 | Sequence 5884, Ap | 243 | 31 | 33.7 | 520 | 6 | US-10-954-468-13 | Sequence 13, Appl |
| 171 | 31.5 | 34.2 | 906 | 7 | US-11-124-635-4 | Sequence 4, Appli | 244 | 31 | 33.7 | 530 | 7 | US-11-088-634A-2 | Sequence 2, Appli |

| | | | | | | | | | | | | |
|-----|------|------|------|---|--------------------|-------------------|------|------|------|------|--------------------|--------------------|
| 245 | 31 | 33.7 | 542 | 7 | US-11-019-711-97 | Sequence 97, Appl | 318 | 30 | 32.6 | 344 | 6 | US-10-454-437-148 |
| 246 | 31 | 33.7 | 554 | 7 | US-11-159-902-4 | Sequence 4, Appl | 319 | 30 | 32.6 | 344 | 7 | US-11-055-163-6 |
| 247 | 31 | 33.7 | 592 | 7 | US-11-052-554A-235 | Sequence 235, App | 320 | 30 | 32.6 | 350 | 6 | US-10-063-703-8 |
| 248 | 31 | 33.7 | 592 | 7 | US-11-212-443-6 | Sequence 6, Appl | 321 | 30 | 32.6 | 350 | 6 | US-11-102-240-8 |
| 249 | 31 | 33.7 | 592 | 7 | US-11-212-443-91 | Sequence 91, Appl | 322 | 30 | 32.6 | 354 | 6 | US-10-467-657-6058 |
| 250 | 31 | 33.7 | 592 | 7 | US-11-212-443-98 | Sequence 98, Appl | 323 | 30 | 32.6 | 354 | 6 | US-11-108-528-34 |
| 251 | 31 | 33.7 | 592 | 7 | US-11-212-443-106 | Sequence 106, App | 324 | 30 | 32.6 | 372 | 6 | US-10-497-767-2 |
| 252 | 31 | 33.7 | 592 | 7 | US-11-212-443-107 | Sequence 107, App | 325 | 30 | 32.6 | 382 | 6 | US-10-467-657-1862 |
| 253 | 31 | 33.7 | 592 | 7 | US-11-212-443-110 | Sequence 110, App | 326 | 30 | 32.6 | 418 | 6 | US-11-075-185-11 |
| 254 | 31 | 33.7 | 600 | 7 | US-11-212-443-111 | Sequence 111, App | 327 | 30 | 32.6 | 439 | 6 | US-10-753-537-20 |
| 255 | 31 | 33.7 | 668 | 6 | US-10-995-561-619 | Sequence 619, App | 328 | 30 | 32.6 | 441 | 6 | US-10-753-537-20 |
| 256 | 31 | 33.7 | 691 | 6 | US-10-995-561-617 | Sequence 617, App | 329 | 30 | 32.6 | 458 | 6 | US-11-077-550-114 |
| 257 | 31 | 33.7 | 731 | 7 | US-11-052-554A-155 | Sequence 155, App | 330 | 30 | 32.6 | 465 | 6 | US-10-793-626-1676 |
| 258 | 31 | 33.7 | 742 | 6 | US-10-995-561-615 | Sequence 155, App | 331 | 30 | 32.6 | 472 | 6 | US-10-467-657-86 |
| 259 | 31 | 33.7 | 742 | 6 | US-10-995-561-618 | Sequence 618, App | 332 | 30 | 32.6 | 472 | 6 | US-10-467-657-6324 |
| 260 | 31 | 33.7 | 756 | 6 | US-10-954-468-15 | Sequence 15, App | 333 | 30 | 32.6 | 473 | 6 | US-10-131-826A-382 |
| 261 | 31 | 33.7 | 756 | 6 | US-10-954-468-27 | Sequence 27, Appl | 334 | 30 | 32.6 | 483 | 7 | US-11-037-243-79 |
| 262 | 31 | 33.7 | 758 | 6 | US-10-954-468-28 | Sequence 28, Appl | 335 | 30 | 32.6 | 514 | 7 | US-11-103-037-3 |
| 263 | 31 | 33.7 | 759 | 6 | US-10-954-468-12 | Sequence 12, Appl | 336 | 30 | 32.6 | 515 | 6 | US-10-630-203-6 |
| 264 | 31 | 33.7 | 759 | 6 | US-10-954-468-26 | Sequence 26, Appl | 337 | 30 | 32.6 | 515 | 6 | US-11-102-188-3 |
| 265 | 31 | 33.7 | 759 | 6 | US-10-954-468-29 | Sequence 29, Appl | 338 | 30 | 32.6 | 522 | 7 | US-11-080-991-104 |
| 266 | 31 | 33.7 | 795 | 6 | US-10-954-468-29 | Sequence 29, Appl | 339 | 30 | 32.6 | 527 | 7 | US-11-010-239-46 |
| 267 | 31 | 33.7 | 812 | 7 | US-11-052-554A-87 | Sequence 87, Appl | 340 | 30 | 32.6 | 548 | 7 | US-11-077-550-24 |
| 268 | 31 | 33.7 | 832 | 6 | US-11-010-874-1 | Sequence 1, Appl | 341 | 30 | 32.6 | 549 | 7 | US-11-102-188-7 |
| 269 | 31 | 33.7 | 833 | 7 | US-10-512-109-29 | Sequence 29, Appl | 342 | 30 | 32.6 | 550 | 6 | US-11-102-188-7 |
| 270 | 31 | 33.7 | 1023 | 6 | US-11-159-902-2 | Sequence 2, Appl | 343 | 30 | 32.6 | 550 | 6 | US-10-467-657-234 |
| 271 | 31 | 33.7 | 1503 | 7 | US-10-995-561-968 | Sequence 968, App | 344 | 30 | 32.6 | 550 | 6 | US-10-467-657-924 |
| 272 | 31 | 33.7 | 1503 | 7 | US-11-087-100-6 | Sequence 6, Appl | 345 | 30 | 32.6 | 561 | 6 | US-10-454-437-330 |
| 273 | 31 | 33.7 | 1503 | 7 | US-11-087-084-6 | Sequence 6, Appl | 346 | 30 | 32.6 | 648 | 7 | US-11-024-959-457 |
| 274 | 31 | 33.7 | 1503 | 7 | US-11-087-085-6 | Sequence 6, Appl | 347 | 30 | 32.6 | 652 | 7 | US-11-079-122-11 |
| 275 | 31 | 33.7 | 1591 | 6 | US-10-495-083-4 | Sequence 4, Appl | 348 | 30 | 32.6 | 655 | 7 | US-11-079-122-12 |
| 276 | 31 | 33.7 | 1622 | 6 | US-10-495-083-6 | Sequence 6, Appl | 349 | 30 | 32.6 | 655 | 7 | US-11-079-122-13 |
| 277 | 30.5 | 33.2 | 3507 | 7 | US-11-075-185-7 | Sequence 7, Appl | 350 | 30 | 32.6 | 655 | 7 | US-11-079-122-15 |
| 278 | 30.5 | 33.2 | 112 | 7 | US-11-000-463-282 | Sequence 282, App | 351 | 30 | 32.6 | 725 | 6 | US-10-467-657-1536 |
| 279 | 30.5 | 33.2 | 416 | 7 | US-11-054-281-137 | Sequence 137, App | 352 | 30 | 32.6 | 733 | 7 | US-11-012-762-68 |
| 280 | 30.5 | 33.2 | 416 | 7 | US-11-054-281-138 | Sequence 138, App | 353 | 30 | 32.6 | 829 | 6 | US-10-512-109-27 |
| 281 | 30.5 | 33.2 | 502 | 7 | US-11-054-281-140 | Sequence 140, App | 354 | 30 | 32.6 | 858 | 7 | US-11-077-550-22 |
| 282 | 30.5 | 33.2 | 1147 | 6 | US-10-615-668-5 | Sequence 5, Appl | 355 | 30 | 32.6 | 860 | 7 | US-11-077-550-175 |
| 283 | 30 | 32.6 | 32 | 7 | US-11-121-301-40 | Sequence 40, Appl | 356 | 30 | 32.6 | 862 | 7 | US-11-077-550-94 |
| 284 | 30 | 32.6 | 37 | 6 | US-10-467-657-1302 | Sequence 1302, Ap | 357 | 30 | 32.6 | 862 | 7 | US-11-077-550-171 |
| 285 | 30 | 32.6 | 39 | 6 | US-10-467-657-7498 | Sequence 7498, Ap | 358 | 30 | 32.6 | 862 | 7 | US-11-077-550-173 |
| 286 | 30 | 32.6 | 71 | 7 | US-10-467-657-1914 | Sequence 1914, Ap | 359 | 30 | 32.6 | 864 | 7 | US-11-077-550-102 |
| 287 | 30 | 32.6 | 118 | 7 | US-11-156-084-94 | Sequence 94, Appl | 360 | 30 | 32.6 | 865 | 7 | US-11-077-550-100 |
| 288 | 30 | 32.6 | 119 | 7 | US-11-156-084-57 | Sequence 57, Appl | 361 | 30 | 32.6 | 866 | 7 | US-11-077-550-88 |
| 289 | 30 | 32.6 | 124 | 6 | US-10-467-657-382 | Sequence 382, App | 362 | 30 | 32.6 | 866 | 7 | US-11-077-550-80 |
| 290 | 30 | 32.6 | 127 | 6 | US-10-467-657-1320 | Sequence 1320, Ap | 363 | 30 | 32.6 | 867 | 7 | US-11-077-550-96 |
| 291 | 30 | 32.6 | 127 | 6 | US-10-467-657-5548 | Sequence 5548, Ap | 364 | 30 | 32.6 | 867 | 7 | US-11-077-550-98 |
| 292 | 30 | 32.6 | 127 | 6 | US-10-467-657-7500 | Sequence 7500, Ap | 365 | 30 | 32.6 | 870 | 7 | US-11-077-550-92 |
| 293 | 30 | 32.6 | 127 | 6 | US-10-467-657-8260 | Sequence 8260, Ap | 366 | 30 | 32.6 | 871 | 7 | US-11-077-550-84 |
| 294 | 30 | 32.6 | 127 | 6 | US-10-467-657-8312 | Sequence 8312, Ap | 367 | 30 | 32.6 | 871 | 7 | US-11-077-550-86 |
| 295 | 30 | 32.6 | 132 | 6 | US-10-821-234-1249 | Sequence 1249, Ap | 368 | 30 | 32.6 | 876 | 7 | US-11-077-550-90 |
| 296 | 30 | 32.6 | 135 | 6 | US-10-467-657-5364 | Sequence 5364, Ap | 369 | 30 | 32.6 | 876 | 7 | US-11-077-550-98 |
| 297 | 30 | 32.6 | 161 | 6 | US-10-467-657-1786 | Sequence 1786, Ap | 370 | 30 | 32.6 | 876 | 7 | US-11-077-550-106 |
| 298 | 30 | 32.6 | 183 | 7 | US-11-212-443-86 | Sequence 86, Appl | 371 | 30 | 32.6 | 876 | 7 | US-11-077-550-108 |
| 299 | 30 | 32.6 | 208 | 7 | US-11-156-084-97 | Sequence 96, Appl | 372 | 30 | 32.6 | 888 | 7 | US-11-077-550-112 |
| 300 | 30 | 32.6 | 215 | 7 | US-11-202-516-6 | Sequence 97, Appl | 373 | 30 | 32.6 | 915 | 7 | US-11-156-084-119 |
| 301 | 30 | 32.6 | 220 | 6 | US-10-467-657-8734 | Sequence 6, Appl | 374 | 30 | 32.6 | 992 | 7 | US-11-010-239-119 |
| 302 | 30 | 32.6 | 232 | 6 | US-10-467-962B-87 | Sequence 8734, Ap | 375 | 30 | 32.6 | 1022 | 7 | US-11-010-239-119 |
| 303 | 30 | 32.6 | 240 | 7 | US-11-054-515-1930 | Sequence 87, Appl | 376 | 30 | 32.6 | 1022 | 7 | US-11-156-084-118 |
| 304 | 30 | 32.6 | 247 | 7 | US-11-054-515-1892 | Sequence 1930, Ap | 377 | 30 | 32.6 | 1048 | 6 | US-10-392-234A-20 |
| 305 | 30 | 32.6 | 248 | 7 | US-11-052-554A-56 | Sequence 1892, Ap | 378 | 30 | 32.6 | 1049 | 6 | US-10-392-234A-12 |
| 306 | 30 | 32.6 | 253 | 7 | US-11-054-515-858 | Sequence 56, Appl | 379 | 30 | 32.6 | 1067 | 7 | US-11-062 |
| 307 | 30 | 32.6 | 257 | 6 | US-11-054-515-858 | Sequence 858, App | 380 | 30 | 32.6 | 1068 | 6 | US-10-467-657-2904 |
| 308 | 30 | 32.6 | 273 | 6 | US-10-821-234-1203 | Sequence 160, App | 381 | 30 | 32.6 | 1133 | 6 | US-11-062 |
| 309 | 30 | 32.6 | 281 | 6 | US-10-793-626-1026 | Sequence 1203, Ap | 382 | 30 | 32.6 | 1133 | 6 | US-10-821-234-1219 |
| 310 | 30 | 32.6 | 287 | 7 | US-11-080-991-66 | Sequence 1026, Ap | 383 | 30 | 32.6 | 1169 | 6 | US-11-077-550-20 |
| 311 | 30 | 32.6 | 295 | 7 | US-11-194-246-298 | Sequence 66, Appl | 384 | 30 | 32.6 | 1198 | 6 | US-10-877-346-35 |
| 312 | 30 | 32.6 | 310 | 7 | US-11-055-163-7 | Sequence 298, App | 385 | 30 | 32.6 | 1227 | 7 | US-11-052-554A-13 |
| 313 | 30 | 32.6 | 329 | 7 | US-11-156-084-28 | Sequence 7, Appl | 386 | 30 | 32.6 | 1389 | 6 | US-10-467-657-334 |
| 314 | 30 | 32.6 | 329 | 7 | US-11-156-084-46 | Sequence 28, Appl | 387 | 30 | 32.6 | 1420 | 7 | US-11-077-550-110 |
| 315 | 30 | 32.6 | 329 | 7 | US-11-156-084-171 | Sequence 46, Appl | 388 | 30 | 32.6 | 1960 | 7 | US-11-069-834-48 |
| 316 | 30 | 32.6 | 329 | 7 | US-11-156-084-243 | Sequence 46, Appl | 389 | 30 | 32.6 | 1960 | 7 | US-11-069-834-50 |
| 317 | 30 | 32.6 | 337 | 6 | US-10-821-234-1004 | Sequence 171, App | 390 | 30 | 32.6 | 2399 | 7 | US-11-052-554A-92 |
| | | | | | | Sequence 243, App | 391 | 30 | 32.6 | 3375 | 7 | US-11-044-111-23 |
| | | | | | | Sequence 1004, Ap | 29.5 | 32.1 | 99 | 6 | US-10-467-657-5934 | |

| | | | | | | | | | | | | | |
|-----|------|------|------|---|--------------------|--------------------|-----|----|------|------|---|--------------------|-------------------|
| 391 | 29.5 | 32.1 | 112 | 7 | US-11-020-772-10 | Sequence 10, Appl | 464 | 29 | 31.5 | 342 | 7 | US-11-008-570-45 | Sequence 45, Appl |
| 392 | 29.5 | 32.1 | 174 | 6 | US-10-714-887-186 | Sequence 156, App | 465 | 29 | 31.5 | 353 | 7 | US-11-182-592-4 | Sequence 4, Appl |
| 393 | 29.5 | 32.1 | 240 | 6 | US-11-170-653-38 | Sequence 38, Appl | 466 | 29 | 31.5 | 363 | 7 | US-11-111-239-6 | Sequence 6, Appl |
| 394 | 29.5 | 32.1 | 270 | 6 | US-10-793-626-514 | Sequence 514, App | 467 | 29 | 31.5 | 366 | 6 | US-10-467-657-1164 | Sequence 1164, Ap |
| 395 | 29.5 | 32.1 | 336 | 6 | US-10-980-388-120 | Sequence 120, App | 468 | 29 | 31.5 | 374 | 7 | US-11-051-267-20 | Sequence 20, Appl |
| 396 | 29.5 | 32.1 | 683 | 7 | US-11-150-533-26 | Sequence 26, Appl | 469 | 29 | 31.5 | 393 | 7 | US-11-111-239-8 | Sequence 8, Appl |
| 397 | 29.5 | 32.1 | 689 | 7 | US-11-150-533-30 | Sequence 30, Appl | 470 | 29 | 31.5 | 398 | 6 | US-10-873-528-61 | Sequence 61, Appl |
| 398 | 29.5 | 32.1 | 1167 | 7 | US-11-052-554A-121 | Sequence 121, App | 471 | 29 | 31.5 | 399 | 7 | US-11-111-239-10 | Sequence 10, Appl |
| 399 | 29.5 | 32.1 | 2261 | 6 | US-10-995-561-600 | Sequence 600, App | 472 | 29 | 31.5 | 412 | 7 | US-11-117-161-11 | Sequence 11, Appl |
| 400 | 29.5 | 32.1 | 2261 | 6 | US-10-511-545-1 | Sequence 1, Appl | 473 | 29 | 31.5 | 412 | 7 | US-11-080-257-11 | Sequence 11, Appl |
| 401 | 29.5 | 32.1 | 2261 | 6 | US-11-055-309A-9 | Sequence 9, Appl | 474 | 29 | 31.5 | 434 | 7 | US-11-055-822-794 | Sequence 794, App |
| 402 | 29.5 | 32.1 | 2261 | 7 | US-11-055-309A-10 | Sequence 10, Appl | 475 | 29 | 31.5 | 435 | 6 | US-10-467-657-5694 | Sequence 5694, Ap |
| 403 | 29 | 31.5 | 32 | 7 | US-11-046-456-25 | Sequence 25, Appl | 476 | 29 | 31.5 | 450 | 7 | US-11-087-100-20 | Sequence 20, Appl |
| 404 | 29 | 31.5 | 32 | 7 | US-11-046-644-25 | Sequence 25, Appl | 477 | 29 | 31.5 | 450 | 7 | US-11-087-100-28 | Sequence 28, Appl |
| 405 | 29 | 31.5 | 35 | 7 | US-11-046-456-85 | Sequence 85, Appl | 478 | 29 | 31.5 | 450 | 7 | US-11-087-084-20 | Sequence 20, Appl |
| 406 | 29 | 31.5 | 35 | 7 | US-11-046-644-85 | Sequence 85, Appl | 479 | 29 | 31.5 | 450 | 7 | US-11-087-084-28 | Sequence 28, Appl |
| 407 | 29 | 31.5 | 60 | 7 | US-11-046-456-87 | Sequence 87, Appl | 480 | 29 | 31.5 | 450 | 7 | US-11-087-085-20 | Sequence 20, Appl |
| 408 | 29 | 31.5 | 60 | 7 | US-11-046-644-87 | Sequence 87, Appl | 481 | 29 | 31.5 | 450 | 7 | US-11-087-085-28 | Sequence 28, Appl |
| 409 | 29 | 31.5 | 86 | 6 | US-10-485-788A-822 | Sequence 822, App | 482 | 29 | 31.5 | 454 | 7 | US-11-037-243-103 | Sequence 103, App |
| 410 | 29 | 31.5 | 86 | 7 | US-11-053-076-207 | Sequence 207, App | 483 | 29 | 31.5 | 472 | 7 | US-11-165-211-7 | Sequence 7, Appl |
| 411 | 29 | 31.5 | 90 | 7 | US-11-046-456-89 | Sequence 89, Appl | 484 | 29 | 31.5 | 472 | 7 | US-11-165-226-7 | Sequence 7, Appl |
| 412 | 29 | 31.5 | 90 | 7 | US-11-046-644-89 | Sequence 89, Appl | 485 | 29 | 31.5 | 475 | 6 | US-10-510-386-98 | Sequence 98, Appl |
| 413 | 29 | 31.5 | 91 | 6 | US-10-467-657-6622 | Sequence 6622, Ap | 486 | 29 | 31.5 | 484 | 6 | US-10-763-712A-12 | Sequence 12, Appl |
| 414 | 29 | 31.5 | 104 | 6 | US-10-793-626-1880 | Sequence 1880, Ap | 487 | 29 | 31.5 | 505 | 6 | US-10-467-962B-59 | Sequence 59, Appl |
| 415 | 29 | 31.5 | 104 | 6 | US-10-793-626-2200 | Sequence 2200, Ap | 488 | 29 | 31.5 | 505 | 6 | US-10-793-626-2220 | Sequence 2220, Ap |
| 416 | 29 | 31.5 | 119 | 7 | US-11-124-368A-327 | Sequence 327, App | 489 | 29 | 31.5 | 510 | 6 | US-10-467-657-6228 | Sequence 6228, Ap |
| 417 | 29 | 31.5 | 120 | 7 | US-11-046-456-91 | Sequence 91, Appl | 490 | 29 | 31.5 | 533 | 7 | US-11-052-554A-119 | Sequence 119, App |
| 418 | 29 | 31.5 | 120 | 7 | US-11-046-644-91 | Sequence 91, Appl | 491 | 29 | 31.5 | 533 | 7 | US-11-128-059-58 | Sequence 58, Appl |
| 419 | 29 | 31.5 | 143 | 6 | US-10-821-234-1216 | Sequence 1216, Ap | 492 | 29 | 31.5 | 557 | 6 | US-10-512-109-9 | Sequence 9, Appl |
| 420 | 29 | 31.5 | 143 | 6 | US-10-821-234-1084 | Sequence 1084, Ap | 493 | 29 | 31.5 | 567 | 6 | US-10-995-561-764 | Sequence 764, App |
| 421 | 29 | 31.5 | 150 | 7 | US-11-046-456-93 | Sequence 93, Appl | 494 | 29 | 31.5 | 572 | 7 | US-11-043-889-13 | Sequence 13, Appl |
| 422 | 29 | 31.5 | 150 | 7 | US-11-046-644-93 | Sequence 93, Appl | 495 | 29 | 31.5 | 574 | 6 | US-10-517-939-108 | Sequence 108, App |
| 423 | 29 | 31.5 | 151 | 6 | US-10-821-234-1524 | Sequence 1524, Ap | 496 | 29 | 31.5 | 703 | 6 | US-10-821-234-1412 | Sequence 1412, Ap |
| 424 | 29 | 31.5 | 159 | 7 | US-11-000-463-333 | Sequence 333, App | 497 | 29 | 31.5 | 704 | 6 | US-10-505-263-10 | Sequence 10, Appl |
| 425 | 29 | 31.5 | 160 | 7 | US-11-010-874-13 | Sequence 13, Appl | 498 | 29 | 31.5 | 746 | 7 | US-11-024-959-346 | Sequence 346, App |
| 426 | 29 | 31.5 | 160 | 7 | US-11-010-874-14 | Sequence 14, Appl | 499 | 29 | 31.5 | 749 | 6 | US-10-793-626-138 | Sequence 138, App |
| 427 | 29 | 31.5 | 160 | 7 | US-11-044-285-4 | Sequence 4, Appl | 500 | 29 | 31.5 | 751 | 6 | US-10-467-657-1418 | Sequence 1418, Ap |
| 428 | 29 | 31.5 | 168 | 7 | US-11-010-874-8 | Sequence 8, Appl | 501 | 29 | 31.5 | 791 | 7 | US-11-056-621-4 | Sequence 4, Appl |
| 429 | 29 | 31.5 | 168 | 7 | US-11-010-874-9 | Sequence 9, Appl | 502 | 29 | 31.5 | 810 | 6 | US-10-995-561-761 | Sequence 761, App |
| 430 | 29 | 31.5 | 176 | 7 | US-11-052-554A-39 | Sequence 39, Appl | 503 | 29 | 31.5 | 810 | 6 | US-10-220-824-2 | Sequence 2, Appl |
| 431 | 29 | 31.5 | 180 | 7 | US-11-046-456-95 | Sequence 95, Appl | 504 | 29 | 31.5 | 817 | 6 | US-10-453-372-520 | Sequence 520, App |
| 432 | 29 | 31.5 | 180 | 7 | US-11-046-644-95 | Sequence 95, Appl | 505 | 29 | 31.5 | 825 | 7 | US-11-074-176-20 | Sequence 20, Appl |
| 433 | 29 | 31.5 | 204 | 6 | US-10-467-657-2696 | Sequence 2696, Ap | 506 | 29 | 31.5 | 1048 | 6 | US-10-392-234A-14 | Sequence 14, Appl |
| 434 | 29 | 31.5 | 204 | 6 | US-10-467-657-6710 | Sequence 6710, App | 507 | 29 | 31.5 | 1048 | 6 | US-10-392-234A-18 | Sequence 18, Appl |
| 435 | 29 | 31.5 | 210 | 7 | US-11-046-456-97 | Sequence 97, App | 508 | 29 | 31.5 | 1061 | 7 | US-11-000-463-347 | Sequence 347, App |
| 436 | 29 | 31.5 | 210 | 7 | US-11-046-644-97 | Sequence 97, Appl | 509 | 29 | 31.5 | 1076 | 6 | US-10-467-657-5708 | Sequence 5708, Ap |
| 437 | 29 | 31.5 | 217 | 6 | US-10-467-657-8174 | Sequence 8174, Ap | 510 | 29 | 31.5 | 1081 | 7 | US-11-113-751-38 | Sequence 38, Appl |
| 438 | 29 | 31.5 | 224 | 6 | US-10-793-626-1430 | Sequence 1430, Ap | 511 | 29 | 31.5 | 1083 | 7 | US-11-113-751-40 | Sequence 40, Appl |
| 439 | 29 | 31.5 | 240 | 7 | US-11-082-389-82 | Sequence 82, Appl | 512 | 29 | 31.5 | 1091 | 7 | US-11-000-463-348 | Sequence 348, App |
| 440 | 29 | 31.5 | 243 | 7 | US-11-046-456-10 | Sequence 10, Appl | 513 | 29 | 31.5 | 1116 | 7 | US-11-113-751-32 | Sequence 32, Appl |
| 441 | 29 | 31.5 | 243 | 7 | US-11-046-456-180 | Sequence 180, App | 514 | 29 | 31.5 | 1116 | 7 | US-11-113-751-34 | Sequence 34, Appl |
| 442 | 29 | 31.5 | 243 | 7 | US-11-046-644-10 | Sequence 10, Appl | 515 | 29 | 31.5 | 1118 | 7 | US-11-113-751-42 | Sequence 42, Appl |
| 443 | 29 | 31.5 | 245 | 6 | US-10-055-877-196 | Sequence 196, App | 516 | 29 | 31.5 | 1121 | 7 | US-11-113-751-19 | Sequence 19, Appl |
| 444 | 29 | 31.5 | 245 | 7 | US-11-046-456-69 | Sequence 69, Appl | 517 | 29 | 31.5 | 1151 | 7 | US-11-113-751-36 | Sequence 36, Appl |
| 445 | 29 | 31.5 | 245 | 7 | US-11-046-644-69 | Sequence 69, Appl | 518 | 29 | 31.5 | 1153 | 7 | US-11-113-751-44 | Sequence 44, Appl |
| 446 | 29 | 31.5 | 263 | 7 | US-11-046-456-4 | Sequence 4, Appl | 519 | 29 | 31.5 | 1346 | 7 | US-11-060-005-2 | Sequence 2, Appl |
| 447 | 29 | 31.5 | 263 | 7 | US-11-046-456-179 | Sequence 179, App | 520 | 29 | 31.5 | 1416 | 7 | US-11-128-059-60 | Sequence 60, Appl |
| 448 | 29 | 31.5 | 263 | 7 | US-11-046-644-4 | Sequence 4, Appl | 521 | 29 | 31.5 | 1494 | 7 | US-11-128-059-78 | Sequence 78, Appl |
| 449 | 29 | 31.5 | 264 | 6 | US-10-467-657-6940 | Sequence 6940, Ap | 522 | 29 | 31.5 | 1496 | 7 | US-11-186-284-35 | Sequence 35, Appl |
| 450 | 29 | 31.5 | 279 | 6 | US-10-055-877-197 | Sequence 197, App | 523 | 29 | 31.5 | 1579 | 7 | US-11-052-554A-9 | Sequence 9, Appl |
| 451 | 29 | 31.5 | 285 | 7 | US-11-129-143-185 | Sequence 185, App | 524 | 29 | 31.5 | 1596 | 7 | US-11-060-005-4 | Sequence 4, Appl |
| 452 | 29 | 31.5 | 302 | 5 | US-09-978-360A-407 | Sequence 407, App | 525 | 29 | 31.5 | 1563 | 6 | US-10-982-545-6 | Sequence 6, Appl |
| 453 | 29 | 31.5 | 302 | 7 | US-11-182-592-6 | Sequence 6, Appl | 526 | 29 | 31.5 | 1786 | 7 | US-11-196-400-3 | Sequence 3, Appl |
| 454 | 29 | 31.5 | 308 | 6 | US-10-131-826A-100 | Sequence 100, App | 527 | 29 | 31.5 | 2086 | 7 | US-11-128-059-82 | Sequence 82, Appl |
| 455 | 29 | 31.5 | 308 | 7 | US-11-046-456-6 | Sequence 6, Appl | 528 | 29 | 31.5 | 2096 | 6 | US-10-995-561-606 | Sequence 606, App |
| 456 | 29 | 31.5 | 308 | 7 | US-11-046-644-6 | Sequence 6, Appl | 529 | 29 | 31.5 | 2197 | 7 | US-11-075-185-8 | Sequence 8, Appl |
| 457 | 29 | 31.5 | 308 | 7 | US-11-052-554A-251 | Sequence 251, App | 530 | 29 | 31.5 | 2313 | 6 | US-11-128-059-80 | Sequence 80, Appl |
| 458 | 29 | 31.5 | 310 | 6 | US-10-454-437-328 | Sequence 328, App | 531 | 29 | 31.5 | 2351 | 6 | US-10-995-561-608 | Sequence 608, App |
| 459 | 29 | 31.5 | 329 | 6 | US-10-467-657-2240 | Sequence 2240, Ap | 532 | 29 | 31.5 | 2358 | 7 | US-11-128-059-74 | Sequence 74, Appl |
| 460 | 29 | 31.5 | 333 | 6 | US-10-878-556A-174 | Sequence 174, App | 533 | 29 | 31.5 | 2417 | 6 | US-10-453-372-228 | Sequence 228, App |
| 461 | 29 | 31.5 | 338 | 6 | US-10-467-657-3178 | Sequence 3178, Ap | 534 | 29 | 31.5 | 2439 | 7 | US-11-128-059-76 | Sequence 76, Appl |
| 462 | 29 | 31.5 | 339 | 7 | US-11-010-874-3 | Sequence 3, Appl | 535 | 29 | 31.5 | 2458 | 7 | US-11-128-059-94 | Sequence 94, Appl |
| 463 | 29 | 31.5 | 339 | 7 | US-11-010-874-4 | Sequence 4, Appl | 536 | 29 | 31.5 | 2551 | 6 | US-10-453-372-256 | Sequence 256, App |

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|-----|------|------|------|---|--------------------|--------------------|-----|----|------|-----|---|--------------------|--------------------|
| 537 | 29 | 31.5 | 2551 | 7 | US-11-128-059-96 | Sequence 96, Appl | 610 | 28 | 30.4 | 321 | 7 | US-11-212-443-10 | Sequence 10, Appl |
| 538 | 29 | 31.5 | 2902 | 7 | US-10-052-554A-91 | Sequence 91, Appl | 611 | 28 | 30.4 | 321 | 6 | US-11-212-443-12 | Sequence 12, Appl |
| 539 | 28.5 | 31.0 | 35 | 6 | US-10-957-351-120 | Sequence 120, Appl | 612 | 28 | 30.4 | 322 | 7 | US-10-467-657-1006 | Sequence 1006, Ap |
| 540 | 28.5 | 31.0 | 181 | 7 | US-11-175-690-344 | Sequence 344, Appl | 613 | 28 | 30.4 | 322 | 6 | US-10-055-877-26 | Sequence 26, Appl |
| 541 | 28.5 | 31.0 | 181 | 7 | US-11-175-690-345 | Sequence 345, Appl | 614 | 28 | 30.4 | 324 | 6 | US-10-467-657-722 | Sequence 722, Appl |
| 542 | 28.5 | 31.0 | 181 | 7 | US-11-175-690-346 | Sequence 346, Appl | 615 | 28 | 30.4 | 327 | 6 | US-10-793-626-1104 | Sequence 1104, Ap |
| 543 | 28.5 | 31.0 | 181 | 7 | US-11-175-690-347 | Sequence 347, Appl | 616 | 28 | 30.4 | 327 | 6 | US-10-873-528-4 | Sequence 4, Appl |
| 544 | 28.5 | 31.0 | 181 | 7 | US-11-175-690-348 | Sequence 348, Appl | 617 | 28 | 30.4 | 336 | 7 | US-11-129-143-105 | Sequence 105, App |
| 545 | 28.5 | 31.0 | 181 | 7 | US-11-175-690-349 | Sequence 349, Appl | 618 | 28 | 30.4 | 341 | 6 | US-10-821-234-1628 | Sequence 1628, Ap |
| 546 | 28.5 | 31.0 | 238 | 6 | US-10-927-641-68 | Sequence 68, Appl | 619 | 28 | 30.4 | 343 | 6 | US-10-497-135-12 | Sequence 12, Appl |
| 547 | 28.5 | 31.0 | 344 | 6 | US-10-967-527A-24 | Sequence 24, Appl | 620 | 28 | 30.4 | 344 | 6 | US-10-995-561-740 | Sequence 740, App |
| 548 | 28.5 | 31.0 | 362 | 6 | US-10-467-657-6880 | Sequence 6880, Ap | 621 | 28 | 30.4 | 344 | 6 | US-10-995-561-744 | Sequence 744, App |
| 549 | 28.5 | 31.0 | 415 | 7 | US-11-055-822-816 | Sequence 816, App | 622 | 28 | 30.4 | 344 | 7 | US-11-008-570-44 | Sequence 44, Appl |
| 550 | 28.5 | 31.0 | 437 | 7 | US-11-194-246-324 | Sequence 324, App | 623 | 28 | 30.4 | 350 | 6 | US-10-467-657-1972 | Sequence 1972, Ap |
| 551 | 28.5 | 31.0 | 442 | 7 | US-11-055-822-814 | Sequence 814, App | 624 | 28 | 30.4 | 351 | 6 | US-10-467-657-8316 | Sequence 8316, Ap |
| 552 | 28.5 | 31.0 | 491 | 6 | US-10-763-712A-4 | Sequence 4, Appli | 625 | 28 | 30.4 | 351 | 6 | US-10-838-616-22 | Sequence 22, Appl |
| 553 | 28.5 | 31.0 | 500 | 6 | US-10-467-657-594 | Sequence 594, App | 626 | 28 | 30.4 | 357 | 7 | US-11-108-528-60 | Sequence 60, Appl |
| 554 | 28.5 | 31.0 | 790 | 7 | US-11-175-690-257 | Sequence 257, App | 627 | 28 | 30.4 | 358 | 6 | US-10-467-657-6970 | Sequence 6970, Ap |
| 555 | 28.5 | 31.0 | 790 | 7 | US-11-175-690-258 | Sequence 258, App | 628 | 28 | 30.4 | 360 | 7 | US-11-108-528-6 | Sequence 6, Appli |
| 556 | 28.5 | 31.0 | 790 | 7 | US-11-175-690-259 | Sequence 259, App | 629 | 28 | 30.4 | 363 | 6 | US-10-055-877-14 | Sequence 14, Appl |
| 557 | 28.5 | 31.0 | 790 | 7 | US-11-175-690-260 | Sequence 260, App | 630 | 28 | 30.4 | 363 | 7 | US-11-055-822-646 | Sequence 646, App |
| 558 | 28.5 | 31.0 | 790 | 7 | US-11-175-690-261 | Sequence 261, App | 631 | 28 | 30.4 | 364 | 6 | US-10-877-346-64 | Sequence 64, Appl |
| 559 | 28.5 | 31.0 | 790 | 7 | US-11-175-690-262 | Sequence 262, App | 632 | 28 | 30.4 | 374 | 6 | US-10-055-877-20 | Sequence 20, Appl |
| 560 | 28.5 | 31.0 | 4655 | 6 | US-10-995-561-556 | Sequence 556, App | 633 | 28 | 30.4 | 374 | 6 | US-10-055-877-22 | Sequence 22, Appl |
| 561 | 28 | 30.4 | 21 | 6 | US-10-893-584-205 | Sequence 205, App | 634 | 28 | 30.4 | 374 | 7 | US-11-037-243-61 | Sequence 61, Appl |
| 562 | 28 | 30.4 | 39 | 6 | US-10-467-657-3574 | Sequence 3574, Ap | 635 | 28 | 30.4 | 381 | 6 | US-10-454-437-316 | Sequence 316, App |
| 563 | 28 | 30.4 | 41 | 7 | US-11-043-788-492 | Sequence 492, App | 636 | 28 | 30.4 | 387 | 6 | US-10-467-657-5522 | Sequence 5522, Ap |
| 564 | 28 | 30.4 | 43 | 6 | US-10-957-887B-73 | Sequence 73, Appl | 637 | 28 | 30.4 | 389 | 7 | US-11-019-711-131 | Sequence 131, App |
| 565 | 28 | 30.4 | 44 | 6 | US-10-957-887B-209 | Sequence 209, App | 638 | 28 | 30.4 | 391 | 6 | US-10-878-556A-86 | Sequence 86, Appl |
| 566 | 28 | 30.4 | 44 | 6 | US-10-957-887B-251 | Sequence 251, App | 639 | 28 | 30.4 | 391 | 6 | US-10-995-561-739 | Sequence 739, App |
| 567 | 28 | 30.4 | 66 | 6 | US-10-467-657-766 | Sequence 766, App | 640 | 28 | 30.4 | 398 | 7 | US-11-130-391-1 | Sequence 1, Appli |
| 568 | 28 | 30.4 | 75 | 6 | US-10-467-657-4938 | Sequence 4938, Ap | 641 | 28 | 30.4 | 398 | 7 | US-11-130-391-2 | Sequence 2, Appli |
| 569 | 28 | 30.4 | 76 | 6 | US-10-995-561-591 | Sequence 591, App | 642 | 28 | 30.4 | 398 | 7 | US-11-129-574-1 | Sequence 1, Appli |
| 570 | 28 | 30.4 | 76 | 6 | US-10-995-561-592 | Sequence 592, App | 643 | 28 | 30.4 | 398 | 7 | US-11-129-574-2 | Sequence 2, Appli |
| 571 | 28 | 30.4 | 79 | 7 | US-11-077-386-21 | Sequence 21, Appl | 644 | 28 | 30.4 | 399 | 6 | US-10-467-657-7478 | Sequence 7478, Ap |
| 572 | 28 | 30.4 | 89 | 6 | US-10-467-657-3582 | Sequence 3582, Ap | 645 | 28 | 30.4 | 404 | 7 | US-11-052-554A-344 | Sequence 344, App |
| 573 | 28 | 30.4 | 92 | 6 | US-10-485-788A-758 | Sequence 758, App | 646 | 28 | 30.4 | 425 | 6 | US-10-336-263A-2 | Sequence 2, Appli |
| 574 | 28 | 30.4 | 92 | 7 | US-11-053-076-135 | Sequence 135, App | 647 | 28 | 30.4 | 429 | 6 | US-10-523-038-48 | Sequence 48, Appl |
| 575 | 28 | 30.4 | 100 | 7 | US-11-025-712-7 | Sequence 7, Appli | 648 | 28 | 30.4 | 429 | 6 | US-11-129-442-40 | Sequence 40, Appl |
| 576 | 28 | 30.4 | 101 | 6 | US-10-793-626-3002 | Sequence 3002, Ap | 649 | 28 | 30.4 | 430 | 6 | US-10-517-939-80 | Sequence 80, Appl |
| 577 | 28 | 30.4 | 102 | 6 | US-10-485-788A-783 | Sequence 783, App | 650 | 28 | 30.4 | 432 | 6 | US-10-821-234-1463 | Sequence 1463, Ap |
| 578 | 28 | 30.4 | 102 | 7 | US-11-053-076-165 | Sequence 165, App | 651 | 28 | 30.4 | 432 | 6 | US-10-995-561-738 | Sequence 738, App |
| 579 | 28 | 30.4 | 115 | 6 | US-10-793-626-1150 | Sequence 1150, App | 652 | 28 | 30.4 | 438 | 6 | US-10-877-346-58 | Sequence 58, Appl |
| 580 | 28 | 30.4 | 129 | 6 | US-10-501-039-8 | Sequence 8, Appli | 653 | 28 | 30.4 | 438 | 6 | US-10-877-346-59 | Sequence 59, Appl |
| 581 | 28 | 30.4 | 130 | 6 | US-11-194-246-415 | Sequence 415, App | 654 | 28 | 30.4 | 441 | 7 | US-11-024-959-410 | Sequence 410, App |
| 582 | 28 | 30.4 | 185 | 6 | US-10-467-657-1228 | Sequence 1228, Ap | 655 | 28 | 30.4 | 445 | 6 | US-10-995-561-746 | Sequence 746, App |
| 583 | 28 | 30.4 | 191 | 7 | US-11-151-601-38 | Sequence 38, Appl | 656 | 28 | 30.4 | 448 | 7 | US-11-052-554A-65 | Sequence 65, Appl |
| 584 | 28 | 30.4 | 196 | 7 | US-11-093-118-35 | Sequence 35, Appl | 657 | 28 | 30.4 | 457 | 6 | US-10-995-561-741 | Sequence 741, App |
| 585 | 28 | 30.4 | 197 | 6 | US-10-714-887-98 | Sequence 98, Appl | 658 | 28 | 30.4 | 459 | 7 | US-11-024-959-299 | Sequence 299, App |
| 586 | 28 | 30.4 | 198 | 7 | US-11-043-788-195 | Sequence 195, App | 659 | 28 | 30.4 | 461 | 7 | US-11-082-389-176 | Sequence 176, App |
| 587 | 28 | 30.4 | 206 | 6 | US-10-467-657-3004 | Sequence 3004, Ap | 660 | 28 | 30.4 | 491 | 6 | US-10-995-561-743 | Sequence 743, App |
| 588 | 28 | 30.4 | 210 | 6 | US-10-055-877-24 | Sequence 24, Appl | 661 | 28 | 30.4 | 492 | 6 | US-10-524-647-130 | Sequence 130, App |
| 589 | 28 | 30.4 | 210 | 7 | US-11-052-554A-328 | Sequence 328, App | 662 | 28 | 30.4 | 495 | 7 | US-11-052-554A-258 | Sequence 258, App |
| 590 | 28 | 30.4 | 228 | 6 | US-10-714-887-90 | Sequence 90, Appl | 663 | 28 | 30.4 | 503 | 6 | US-10-873-528-74 | Sequence 74, Appl |
| 591 | 28 | 30.4 | 229 | 6 | US-10-467-657-6238 | Sequence 6238, Ap | 664 | 28 | 30.4 | 508 | 7 | US-11-075-185-26 | Sequence 26, Appl |
| 592 | 28 | 30.4 | 240 | 7 | US-11-212-443-139 | Sequence 139, App | 665 | 28 | 30.4 | 512 | 6 | US-10-995-561-745 | Sequence 745, App |
| 593 | 28 | 30.4 | 240 | 7 | US-11-212-443-159 | Sequence 159, App | 666 | 28 | 30.4 | 512 | 6 | US-10-517-939-236 | Sequence 236, App |
| 594 | 28 | 30.4 | 252 | 6 | US-10-527-500-19 | Sequence 19, Appl | 667 | 28 | 30.4 | 512 | 7 | US-11-010-239-69 | Sequence 69, Appl |
| 595 | 28 | 30.4 | 253 | 7 | US-11-054-515-1095 | Sequence 1095, Ap | 668 | 28 | 30.4 | 514 | 6 | US-10-821-234-998 | Sequence 998, App |
| 596 | 28 | 30.4 | 254 | 6 | US-10-821-234-980 | Sequence 980, App | 669 | 28 | 30.4 | 522 | 6 | US-10-955-561-1030 | Sequence 1030, Ap |
| 597 | 28 | 30.4 | 263 | 7 | US-11-046-644-18 | Sequence 1195, Ap | 670 | 28 | 30.4 | 527 | 7 | US-11-052-554A-304 | Sequence 304, App |
| 598 | 28 | 30.4 | 267 | 7 | US-11-165-067A-3 | Sequence 3, Appli | 671 | 28 | 30.4 | 536 | 6 | US-10-714-887-256 | Sequence 256, App |
| 599 | 28 | 30.4 | 257 | 7 | US-11-054-515-1531 | Sequence 1531, Ap | 672 | 28 | 30.4 | 537 | 7 | US-11-129-442-47 | Sequence 47, Appl |
| 600 | 28 | 30.4 | 259 | 6 | US-10-821-234-1561 | Sequence 1561, Ap | 673 | 28 | 30.4 | 550 | 7 | US-11-043-889-5 | Sequence 5, Appli |
| 601 | 28 | 30.4 | 259 | 6 | US-10-467-657-3410 | Sequence 3410, Ap | 674 | 28 | 30.4 | 579 | 7 | US-11-045-802-32 | Sequence 32, Appl |
| 602 | 28 | 30.4 | 263 | 7 | US-11-046-456-18 | Sequence 18, Appl | 675 | 28 | 30.4 | 596 | 7 | US-11-152-903-2 | Sequence 2, Appli |
| 603 | 28 | 30.4 | 267 | 7 | US-11-046-644-18 | Sequence 18, Appl | 676 | 28 | 30.4 | 596 | 7 | US-11-152-903-6 | Sequence 6, Appli |
| 604 | 28 | 30.4 | 267 | 7 | US-11-165-067A-3 | Sequence 3, Appli | 677 | 28 | 30.4 | 596 | 7 | US-11-152-903-6 | Sequence 6, Appli |
| 605 | 28 | 30.4 | 270 | 6 | US-10-467-657-5426 | Sequence 5426, Ap | 678 | 28 | 30.4 | 596 | 7 | US-11-152-903-8 | Sequence 8, Appl |
| 606 | 28 | 30.4 | 271 | 7 | US-11-179-977-10 | Sequence 10, Appl | 679 | 28 | 30.4 | 596 | 7 | US-11-152-903-10 | Sequence 10, Appl |
| 607 | 28 | 30.4 | 278 | 7 | US-11-055-822-984 | Sequence 984, App | 680 | 28 | 30.4 | 596 | 7 | US-11-152-903-12 | Sequence 12, Appl |
| 608 | 28 | 30.4 | 280 | 7 | US-11-170-653-66 | Sequence 66, Appl | 681 | 28 | 30.4 | 601 | 6 | US-10-467-657-7120 | Sequence 7120, Ap |
| 609 | 28 | 30.4 | 318 | 7 | US-11-016-564-8 | Sequence 8, Appli | 682 | 28 | 30.4 | 630 | 7 | US-11-196-400-5 | Sequence 5, Appli |

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| 683 | 28 | 30.4 | 639 | 6 | US-10-821-234-907 | Sequence 907, App | 756 | 27 | 29.3 | 29 | 7 | US-11-089-601-20 | Sequence 20, Appl |
| 684 | 28 | 30.4 | 644 | 6 | US-10-821-234-1107 | Sequence 1107, Ap | 757 | 27 | 29.3 | 29 | 7 | US-11-089-601-21 | Sequence 21, Appl |
| 685 | 28 | 30.4 | 645 | 6 | US-10-763-712A-17 | Sequence 17, Appl | 758 | 27 | 29.3 | 37 | 6 | US-10-467-657-1648 | Sequence 1648, Ap |
| 686 | 28 | 30.4 | 646 | 6 | US-10-763-712A-105 | Sequence 105, App | 759 | 27 | 29.3 | 39 | 7 | US-11-068-783-106 | Sequence 106, App |
| 687 | 28 | 30.4 | 660 | 6 | US-10-878-556A-105 | Sequence 102, App | 760 | 27 | 29.3 | 43 | 6 | US-10-957-887B-223 | Sequence 223, App |
| 688 | 28 | 30.4 | 669 | 7 | US-11-024-959-520 | Sequence 520, App | 761 | 27 | 29.3 | 43 | 6 | US-10-957-887B-234 | Sequence 234, App |
| 689 | 28 | 30.4 | 708 | 7 | US-11-196-475-76 | Sequence 76, Appl | 762 | 27 | 29.3 | 49 | 6 | US-10-467-657-3008 | Sequence 3008, Ap |
| 690 | 28 | 30.4 | 726 | 7 | US-11-124-368A-247 | Sequence 247, App | 763 | 27 | 29.3 | 66 | 6 | US-10-467-657-6624 | Sequence 6624, Ap |
| 691 | 28 | 30.4 | 729 | 7 | US-11-099-691-3 | Sequence 3, Appli | 764 | 27 | 29.3 | 73 | 7 | US-11-051-481-27 | Sequence 27, Appl |
| 692 | 28 | 30.4 | 732 | 7 | US-11-124-368A-248 | Sequence 248, App | 765 | 27 | 29.3 | 78 | 6 | US-10-485-788A-692 | Sequence 692, App |
| 693 | 28 | 30.4 | 740 | 6 | US-10-821-234-1464 | Sequence 1464, Ap | 766 | 27 | 29.3 | 78 | 7 | US-11-053-076-62 | Sequence 62, Appl |
| 694 | 28 | 30.4 | 753 | 7 | US-11-037-243-68 | Sequence 68, Appl | 767 | 27 | 29.3 | 85 | 6 | US-10-925-366A-350 | Sequence 350, App |
| 695 | 28 | 30.4 | 780 | 7 | US-11-089-551A-22 | Sequence 22, Appl | 768 | 27 | 29.3 | 86 | 6 | US-10-925-366A-357 | Sequence 357, App |
| 696 | 28 | 30.4 | 795 | 6 | US-10-821-234-1002 | Sequence 1002, Ap | 769 | 27 | 29.3 | 87 | 7 | US-11-051-481-26 | Sequence 26, Appl |
| 697 | 28 | 30.4 | 801 | 6 | US-10-793-626-2020 | Sequence 2020, Ap | 770 | 27 | 29.3 | 89 | 6 | US-10-925-366A-367 | Sequence 367, App |
| 698 | 28 | 30.4 | 803 | 6 | US-11-124-368A-241 | Sequence 241, App | 771 | 27 | 29.3 | 92 | 6 | US-10-667-295-108 | Sequence 108, App |
| 699 | 28 | 30.4 | 803 | 7 | US-11-124-368A-242 | Sequence 242, App | 772 | 27 | 29.3 | 92 | 6 | US-10-667-295-134 | Sequence 134, App |
| 700 | 28 | 30.4 | 805 | 6 | US-10-927-641-77 | Sequence 77, Appl | 773 | 27 | 29.3 | 97 | 7 | US-11-075-351-59 | Sequence 59, Appl |
| 701 | 28 | 30.4 | 844 | 6 | US-10-763-712A-48 | Sequence 48, Appl | 774 | 27 | 29.3 | 97 | 7 | US-11-093-274-34 | Sequence 34, Appl |
| 702 | 28 | 30.4 | 875 | 7 | US-11-024-959-352 | Sequence 352, App | 775 | 27 | 29.3 | 98 | 6 | US-10-789-273-10 | Sequence 10, Appl |
| 703 | 28 | 30.4 | 896 | 6 | US-10-467-657-7004 | Sequence 7004, Ap | 776 | 27 | 29.3 | 98 | 7 | US-11-144-248-32 | Sequence 32, Appl |
| 704 | 28 | 30.4 | 914 | 6 | US-10-312-954-2 | Sequence 2, Appli | 777 | 27 | 29.3 | 98 | 7 | US-11-054-669-22 | Sequence 22, Appl |
| 705 | 28 | 30.4 | 915 | 6 | US-10-647-956A-6 | Sequence 6, Appli | 778 | 27 | 29.3 | 98 | 7 | US-11-084-554-33 | Sequence 33, Appl |
| 706 | 28 | 30.4 | 943 | 6 | US-10-821-234-1012 | Sequence 1012, Ap | 779 | 27 | 29.3 | 98 | 7 | US-11-144-222-32 | Sequence 32, Appl |
| 707 | 28 | 30.4 | 944 | 7 | US-11-057-058-68 | Sequence 68, Appl | 780 | 27 | 29.3 | 98 | 7 | US-11-004-590-23 | Sequence 23, Appl |
| 708 | 28 | 30.4 | 1029 | 6 | US-10-821-234-908 | Sequence 908, App | 781 | 27 | 29.3 | 100 | 6 | US-10-467-657-9162 | Sequence 9162, Ap |
| 709 | 28 | 30.4 | 1061 | 7 | US-11-121-438-4 | Sequence 4, Appli | 782 | 27 | 29.3 | 109 | 7 | US-11-053-076-20 | Sequence 20, Appl |
| 710 | 28 | 30.4 | 1065 | 7 | US-11-191-374-16 | Sequence 16, Appl | 783 | 27 | 29.3 | 115 | 6 | US-10-467-657-2032 | Sequence 2032, Ap |
| 711 | 28 | 30.4 | 1065 | 7 | US-11-191-375-16 | Sequence 16, Appl | 784 | 27 | 29.3 | 116 | 6 | US-10-925-366A-1 | Sequence 1, Appli |
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| 713 | 28 | 30.4 | 1069 | 7 | US-11-191-374-17 | Sequence 17, Appl | 786 | 27 | 29.3 | 118 | 7 | US-11-127-677-8 | Sequence 8, Appli |
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| 715 | 28 | 30.4 | 1069 | 7 | US-11-191-588-17 | Sequence 17, Appl | 788 | 27 | 29.3 | 118 | 7 | US-11-112-304A-22 | Sequence 22, Appl |
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| 719 | 28 | 30.4 | 1450 | 6 | US-10-485-517-152 | Sequence 152, App | 792 | 27 | 29.3 | 119 | 7 | US-11-127-677-10 | Sequence 10, Appl |
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ALIGNMENTS

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RESULT 1
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; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
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US-11-175-690-321

Query Match 100.0%; Score 92; DB 7; Length 26;
Best Local Similarity 100.0%; Pred. No. 3.9e-10;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSLG 17
Db 10 CFGRKMDRISSSSLG 26

RESULT 2
US-11-175-690-322
; Sequence 322, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 322
; LENGTH: 27
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-322

Query Match 100.0%; Score 92; DB 7; Length 27;
Best Local Similarity 100.0%; Pred. No. 4.1e-10;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSLG 17
Db 10 CFGRKMDRISSSSLG 26

RESULT 3
US-11-175-690-371
; Sequence 371, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 371

```

; LENGTH: 27
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-371

Query Match 100.0%; Score 92; DB 7; Length 27;
Best Local Similarity 100.0%; Pred. No. 4.1e-10;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | | | | | |
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 4
US-11-175-690-323
; Sequence 323, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 323
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-323

Query Match 100.0%; Score 92; DB 7; Length 28;
Best Local Similarity 100.0%; Pred. No. 4.2e-10;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | | | | | |
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 5
US-11-175-690-369
; Sequence 369, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11

; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 369
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-369

Query Match 100.0%; Score 92; DB 7; Length 28;
Best Local Similarity 100.0%; Pred. No. 4.2e-10;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | | | | | |
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 6
US-11-175-690-314
; Sequence 314, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 314
; LENGTH: 29
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-314

Query Match 100.0%; Score 92; DB 7; Length 29;
Best Local Similarity 100.0%; Pred. No. 4.4e-10;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | | | | | |
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 7
US-11-175-690-315
; Sequence 315, Application US/11175690

Publication No. US20060014254A1
 GENERAL INFORMATION:
 APPLICANT: Haseltine et al.
 TITLE OF INVENTION: Albumin Fusion Proteins
 FILE REFERENCE: PF605
 CURRENT APPLICATION NUMBER: US/11/175,690
 CURRENT FILING DATE: 2005-07-07
 PRIOR APPLICATION NUMBER: PCT/US04/001369
 PRIOR FILING DATE: 2004-01-20
 PRIOR APPLICATION NUMBER: US 60/441,305
 PRIOR FILING DATE: 2003-01-22
 PRIOR APPLICATION NUMBER: US 60/453,201
 PRIOR FILING DATE: 2003-03-11
 PRIOR APPLICATION NUMBER: US 60/467,222
 PRIOR FILING DATE: 2003-05-02
 PRIOR APPLICATION NUMBER: US 60/472,816
 PRIOR FILING DATE: 2003-05-23
 PRIOR APPLICATION NUMBER: US 60/476,267
 PRIOR FILING DATE: 2003-06-06
 PRIOR APPLICATION NUMBER: US 60/505,172
 PRIOR FILING DATE: 2003-09-24
 PRIOR APPLICATION NUMBER: US 60/506,746
 PRIOR FILING DATE: 2003-09-30
 NUMBER OF SEQ ID NOS: 568
 SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 315
 LENGTH: 29
 TYPE: PRT
 ORGANISM: Homo sapiens
 US-11-175-690-315

Query Match 100.0%; Score 92; DB 7; Length 29;
 Best Local Similarity 100.0%; Pred. No. 4.9e-10;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 DB 10 CFGRKMDRISSSSGLGC 26

RESULT 8
 US-10-510-880-4
 Sequence 4, Application US/10510880
 Publication No. US20050244902A1
 GENERAL INFORMATION:
 APPLICANT: Rehfeld, Jens F.
 APPLICANT: Goetze, Jens Peter
 TITLE OF INVENTION: Methods for determining levels of human
 TITLE OF INVENTION: B-type natriuretic peptide precursors
 FILE REFERENCE: 2712200200
 CURRENT APPLICATION NUMBER: US/10/510,880
 CURRENT FILING DATE: 2004-10-08
 PRIOR APPLICATION NUMBER: PCT/DK03/00250
 PRIOR FILING DATE: 2003-04-11
 PRIOR APPLICATION NUMBER: PSI692
 PRIOR FILING DATE: 2002-04-11
 NUMBER OF SEQ ID NOS: 7
 SOFTWARE: FastSeq for Windows Version 4.0
 SEQ ID NO 4
 LENGTH: 32
 TYPE: PRT
 ORGANISM: Homo sapiens
 US-10-510-880-4

Query Match 100.0%; Score 92; DB 6; Length 32;
 Best Local Similarity 100.0%; Pred. No. 4.9e-10;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 DB 10 CFGRKMDRISSSSGLGC 26

RESULT 9
 US-10-977-334-3
 Sequence 3, Application US/10977334
 Publication No. US20050244904A1
 GENERAL INFORMATION:
 APPLICANT: NG, LEONG
 TITLE OF INVENTION: DIAGNOSTICS BASED ON SIGNAL PEPTIDE DETECTION
 FILE REFERENCE: ISA-016.01
 CURRENT APPLICATION NUMBER: US/10/977,334
 CURRENT FILING DATE: 2004-10-29
 PRIOR APPLICATION NUMBER: 60/542,647
 PRIOR FILING DATE: 2004-02-06
 PRIOR APPLICATION NUMBER: GB 0325279.8
 PRIOR FILING DATE: 2003-10-29
 NUMBER OF SEQ ID NOS: 8
 SOFTWARE: PatentIn Ver. 3.3
 SEQ ID NO 3
 LENGTH: 32
 TYPE: PRT
 ORGANISM: Homo sapiens
 US-10-977-334-3

Query Match 100.0%; Score 92; DB 6; Length 32;
 Best Local Similarity 100.0%; Pred. No. 4.9e-10;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 DB 10 CFGRKMDRISSSSGLGC 26

RESULT 10
 US-11-043-590-17
 Sequence 17, Application US/11043590
 Publication No. US20050277156A1
 GENERAL INFORMATION:
 APPLICANT: Compugen Ltd
 TITLE OF INVENTION: Novel Brain Natriuretic Peptide Variants and Methods of use ther
 FILE REFERENCE: 1847.1011
 CURRENT APPLICATION NUMBER: US/11/043,590
 CURRENT FILING DATE: 2005-01-27
 NUMBER OF SEQ ID NOS: 47
 SEQ ID NO 17
 LENGTH: 32
 TYPE: PRT
 ORGANISM: Homo sapiens
 US-11-043-590-17

Query Match 100.0%; Score 92; DB 7; Length 32;
 Best Local Similarity 100.0%; Pred. No. 4.9e-10;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 DB 10 CFGRKMDRISSSSGLGC 26

RESULT 11
 US-11-175-690-288
 Sequence 288, Application US/11175690
 Publication No. US20060014254A1
 GENERAL INFORMATION:
 APPLICANT: Haseltine et al.
 TITLE OF INVENTION: Albumin Fusion Proteins
 FILE REFERENCE: PF605
 CURRENT APPLICATION NUMBER: US/11/175,690
 CURRENT FILING DATE: 2005-07-07
 PRIOR APPLICATION NUMBER: PCT/US04/001369
 PRIOR FILING DATE: 2004-01-20
 PRIOR APPLICATION NUMBER: US 60/441,305
 PRIOR FILING DATE: 2003-01-22
 PRIOR APPLICATION NUMBER: US 60/453,201


```

; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/457,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 288
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-288

```

```
Query Match      100.0%; Score 92; DB 7; Length 32;
Best Local Similarity 100.0%; Pred.No. 4.9e-10;
Matches 17; Conservative 0; Mismatches 0; Indels
```

Qy 1 CFGRKMDRISSSSGLGC 17
|||
Db 10 CFGRKMDRISSSSGLGC 26

```

RESULT 12
US-11-175-690-298
; Sequence 298, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF6005
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 298
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-298

```

```
Query Match      100.0%; Score 92; DB 7; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.9e-10;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

QY 1 CFGRKMDRISSSSGLGC 17
|||
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 13
US-11-175-690-304

```

; Sequence 304, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
;
; APPLICANT: Haseltine et al.
;
; TITLE OF INVENTION: Albumin Fusion Proteins
;
; FILE REFERENCE: PG605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 304
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-304

```

Query Match 100.0%; Score 92; DB 7; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.9e-10;
Matches 17; Conservative 0; Mismatches 0; Indels

Qy 1 CFGRKMDRISSSSGLGC 17
|||
Db 10 CFGRKMDRISSSSGLGC 26

```

RESULT 14
US-11-175-690-317
; Sequence 317, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PFG05
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIORITY APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 317
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Homo sapiens

```


US-11-175-690-317

Query Match 100.0%; Score 92; DB 7; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.9e-10;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
|||||
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 15

US-11-175-690-318
; Sequence 318, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 318
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Homo sapiens

US-11-175-690-318

Query Match 100.0%; Score 92; DB 7; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.9e-10;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
|||||
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 16

US-11-175-690-370
; Sequence 370, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816

; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 370
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-370

Query Match 100.0%; Score 92; DB 7; Length 32;
Best Local Similarity 100.0%; Pred. No. 4.9e-10;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
|||||
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 17

US-11-043-590-15
; Sequence 15, Application US/11043590
; Publication No. US20050277156A1
; GENERAL INFORMATION:
; APPLICANT: Compugen Ltd
; TITLE OF INVENTION: Novel Brain Natriuretic Peptide Variants and Methods of use therefor
; FILE REFERENCE: 1847.1011
; CURRENT APPLICATION NUMBER: US/11/043,590
; CURRENT FILING DATE: 2005-01-27
; NUMBER OF SEQ ID NOS: 47
; SEQ ID NO 15
; LENGTH: 42
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-043-590-15

Query Match 100.0%; Score 92; DB 7; Length 42;
Best Local Similarity 100.0%; Pred. No. 6.5e-10;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
|||||
Db 20 CFGRKMDRISSSSGLGC 36

RESULT 18

US-11-175-690-368
; Sequence 368, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172

; PRIOR FILING DATE: 2003-09-24
 ; PRIOR APPLICATION NUMBER: US 60/506,746
 ; PRIOR FILING DATE: 2003-09-30
 ; NUMBER OF SEQ ID NOS: 568
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 368
 ; LENGTH: 52
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-11-175-690-368

Query Match 100.0%; Score 92; DB 7; Length 52;
 Best Local Similarity 100.0%; Pred. No. 8.1e-10;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 Db 10 CFGRKMDRISSSSGLGC 26

RESULT 19
 US-11-043-590-16
 ; Sequence 16, Application US/11043590
 ; Publication No. US20050271156A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Compugen Ltd
 ; TITLE OF INVENTION: Novel Brain Natriuretic Peptide Variants and Methods of use there
 ; FILE REFERENCE: 1847.1011
 ; CURRENT APPLICATION NUMBER: US/11/043,590
 ; CURRENT FILING DATE: 2005-01-27
 ; NUMBER OF SEQ ID NOS: 47
 ; SEQ ID NO 16
 ; LENGTH: 60
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-11-043-590-16

Query Match 100.0%; Score 92; DB 7; Length 60;
 Best Local Similarity 100.0%; Pred. No. 9.4e-10;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 Db 10 CFGRKMDRISSSSGLGC 26

RESULT 20
 US-10-510-880-5
 ; Sequence 5, Application US/10510880
 ; Publication No. US20050244902A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Rehfeld, Jens F.
 ; APPLICANT: Goetze, Jens Peter
 ; APPLICANT: Righesopitalet
 ; TITLE OF INVENTION: Methods for determining levels of human
 ; FILE REFERENCE: 27121200200
 ; CURRENT APPLICATION NUMBER: US/10/510,880
 ; CURRENT FILING DATE: 2004-10-08
 ; PRIOR APPLICATION NUMBER: PCT/DK03/00250
 ; PRIOR FILING DATE: 2003-04-11
 ; PRIOR APPLICATION NUMBER: PS1692
 ; PRIOR FILING DATE: 2002-04-11
 ; NUMBER OF SEQ ID NOS: 7
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 5
 ; LENGTH: 108
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-510-880-5

Query Match 100.0%; Score 92; DB 6; Length 108;
 Best Local Similarity 100.0%; Pred. No. 1.7e-09;

Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CFGRKMDRISSSSGLGC 17
 Db 86 CFGRKMDRISSSSGLGC 102

RESULT 21
 US-10-875-800-1
 ; Sequence 1, Application US/10875800
 ; Publication No. US20050255484A1
 ; GENERAL INFORMATION:
 ; APPLICANT: VALKIES, GUNARS
 ; APPLICANT: DAHLEN, JEFF
 ; APPLICANT: KIRCHICK, HOWARD
 ; APPLICANT: BUECHLER, KEN
 ; TITLE OF INVENTION: DIAGNOSTIC MARKERS OF STROKE AND CEREBRAL INJURY AND
 ; TITLE OF INVENTION: METHODS OF USE THEREOF
 ; FILE REFERENCE: 071949-5408
 ; CURRENT APPLICATION NUMBER: US/10/875,800
 ; CURRENT FILING DATE: 2004-06-23
 ; PRIOR APPLICATION NUMBER: US/10/714,078
 ; PRIOR FILING DATE: 2003-11-14
 ; PRIOR APPLICATION NUMBER: 10/371,149
 ; PRIOR FILING DATE: 2003-02-20
 ; PRIOR APPLICATION NUMBER: 10/225,082
 ; PRIOR FILING DATE: 2002-08-20
 ; PRIOR APPLICATION NUMBER: PCT/US02/26604
 ; PRIOR FILING DATE: 2002-08-20
 ; PRIOR APPLICATION NUMBER: 60/313,775
 ; PRIOR FILING DATE: 2001-08-20
 ; PRIOR APPLICATION NUMBER: 60/334,964
 ; PRIOR FILING DATE: 2001-11-30
 ; PRIOR APPLICATION NUMBER: 60/346,485
 ; PRIOR FILING DATE: 2002-01-02
 ; NUMBER OF SEQ ID NOS: 7
 ; SOFTWARE: PatentIn Ver. 3.2
 ; SEQ ID NO 1
 ; LENGTH: 108
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-875-800-1

Query Match 100.0%; Score 92; DB 6; Length 108;
 Best Local Similarity 100.0%; Pred. No. 1.7e-09;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 Db 86 CFGRKMDRISSSSGLGC 102

RESULT 22
 US-10-299-977-1
 ; Sequence 1, Application US/10299977
 ; Publication No. US20050287613A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Jackowski, George
 ; APPLICANT: Kupchak, Peter
 ; APPLICANT: Stanton, Eric
 ; APPLICANT: Davey, Michelle
 ; TITLE OF INVENTION: Polyclonal-Polyclonal ELISA Assay For Detecting N-Terminus ProBN
 ; FILE REFERENCE: 2132.127
 ; CURRENT APPLICATION NUMBER: US/10/299,977
 ; CURRENT FILING DATE: 2002-11-18
 ; NUMBER OF SEQ ID NOS: 1
 ; SOFTWARE: PatentIn version 3.1
 ; SEQ ID NO 1
 ; LENGTH: 108
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-299-977-1

Query Match 100.0%; Score 92; DB 6; Length 108;
 Best Local Similarity 100.0%; Pred. No. 1.7e-09;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 Db 86 CFGRKMDRISSSSGLGC 102

RESULT 23
 US-10-510-880-1
 ; Sequence 1, Application US/10510880
 ; Publication No. US20050244902A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Rehfeld, Jens F.
 ; APPLICANT: Goetze, Jens Peter
 ; APPLICANT: Righospitalet
 ; TITLE OF INVENTION: Methods for determining levels of human
 ; FILE OF INVENTION: B-type natriuretic peptide precursors
 ; FILE REFERENCE: 271212000200
 ; CURRENT APPLICATION NUMBER: US/10/510,880
 ; CURRENT FILING DATE: 2004-10-08
 ; PRIOR APPLICATION NUMBER: PCT/DK03/00250
 ; PRIOR FILING DATE: 2003-04-11
 ; PRIOR APPLICATION NUMBER: PS1692
 ; PRIOR FILING DATE: 2002-04-11
 ; NUMBER OF SEQ ID NOS: 7
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 1
 ; LENGTH: 134
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-510-880-1

Query Match 100.0%; Score 92; DB 6; Length 134;
 Best Local Similarity 100.0%; Pred. No. 2.2e-09;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 Db 112 CFGRKMDRISSSSGLGC 128

RESULT 24
 US-10-875-800-2
 ; Sequence 2, Application US/10875800
 ; Publication No. US20050255484A1
 ; GENERAL INFORMATION:
 ; APPLICANT: VALKIRS, GUNARS
 ; APPLICANT: DAHLEN, JEFF
 ; APPLICANT: KIRCHICK, HOWARD
 ; APPLICANT: BUECHLER, KEN
 ; TITLE OF INVENTION: DIAGNOSTIC MARKERS OF STROKE AND CEREBRAL INJURY AND
 ; FILE OF INVENTION: METHODS OF USE THEREOF
 ; FILE REFERENCE: 071949-5408
 ; CURRENT APPLICATION NUMBER: US/10/875,800
 ; CURRENT FILING DATE: 2004-06-23
 ; PRIOR APPLICATION NUMBER: US/10/714,078
 ; PRIOR FILING DATE: 2003-11-14
 ; PRIOR APPLICATION NUMBER: 10/371,149
 ; PRIOR FILING DATE: 2003-02-20
 ; PRIOR APPLICATION NUMBER: 10/225,082
 ; PRIOR FILING DATE: 2002-08-20
 ; PRIOR APPLICATION NUMBER: PCT/US02/26604
 ; PRIOR FILING DATE: 2002-08-20
 ; PRIOR APPLICATION NUMBER: 60/313,775
 ; PRIOR FILING DATE: 2001-08-20
 ; PRIOR APPLICATION NUMBER: 60/334,964
 ; PRIOR FILING DATE: 2001-11-30
 ; PRIOR APPLICATION NUMBER: 60/346,485
 ; PRIOR FILING DATE: 2002-01-02
 ; NUMBER OF SEQ ID NOS: 7
 ; SOFTWARE: PatentIn Ver. 3.2

; SEQ ID NO 2
 ; LENGTH: 134
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-875-800-2

Query Match 100.0%; Score 92; DB 6; Length 134;
 Best Local Similarity 100.0%; Pred. No. 2.2e-09;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 Db 112 CFGRKMDRISSSSGLGC 128

RESULT 25
 US-11-043-590-12
 ; Sequence 12, Application US/11043590
 ; Publication No. US20050277156A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Compugen Ltd
 ; TITLE OF INVENTION: Novel Brain Natriuretic Peptide Variants and Methods of use there
 ; FILE REFERENCE: 1847.1011
 ; CURRENT APPLICATION NUMBER: US/11/043,590
 ; CURRENT FILING DATE: 2005-01-27
 ; NUMBER OF SEQ ID NOS: 47
 ; SEQ ID NO 12
 ; LENGTH: 134
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-11-043-590-12

Query Match 100.0%; Score 92; DB 7; Length 134;
 Best Local Similarity 100.0%; Pred. No. 2.2e-09;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 Db 112 CFGRKMDRISSSSGLGC 128

RESULT 26
 US-11-043-590-13
 ; Sequence 13, Application US/11043590
 ; Publication No. US20050277156A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Compugen Ltd
 ; TITLE OF INVENTION: Novel Brain Natriuretic Peptide Variants and Methods of use there
 ; FILE REFERENCE: 1847.1011
 ; CURRENT APPLICATION NUMBER: US/11/043,590
 ; CURRENT FILING DATE: 2005-01-27
 ; NUMBER OF SEQ ID NOS: 47
 ; SEQ ID NO 13
 ; LENGTH: 162
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-11-043-590-13

Query Match 100.0%; Score 92; DB 7; Length 162;
 Best Local Similarity 100.0%; Pred. No. 2.7e-09;
 Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
 |||||
 Db 112 CFGRKMDRISSSSGLGC 128

RESULT 27
 US-11-175-690-234
 ; Sequence 234, Application US/11175690
 ; Publication No. US20060014254A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Haseltine et al.

;; TITLE OF INVENTION: Albumin Fusion Proteins
;; FILE REFERENCE: PF605
;; CURRENT APPLICATION NUMBER: US/11/175,690
;; CURRENT FILING DATE: 2005-07-07
;; PRIOR APPLICATION NUMBER: PCT/US04/001369
;; PRIOR FILING DATE: 2004-01-20
;; PRIOR APPLICATION NUMBER: US 60/441,305
;; PRIOR FILING DATE: 2003-01-22
;; PRIOR APPLICATION NUMBER: US 60/453,201
;; PRIOR FILING DATE: 2003-03-11
;; PRIOR APPLICATION NUMBER: US 60/467,222
;; PRIOR FILING DATE: 2003-05-02
;; PRIOR APPLICATION NUMBER: US 60/472,816
;; PRIOR FILING DATE: 2003-05-23
;; PRIOR APPLICATION NUMBER: US 60/476,267
;; PRIOR FILING DATE: 2003-06-06
;; PRIOR APPLICATION NUMBER: US 60/505,172
;; PRIOR FILING DATE: 2003-09-24
;; PRIOR APPLICATION NUMBER: US 60/506,746
;; PRIOR FILING DATE: 2003-09-30
;; NUMBER OF SEQ ID NOS: 568
;; SOFTWARE: Patentin Ver. 2.0
;; SEQ ID NO 234
;; LENGTH: 630
;; TYPE: PRT
;; ORGANISM: Homo sapiens
US-11-175-690-234

Query Match 100.0%; Score 92; DB 7; Length 630;
Best Local Similarity 100.0%; Pred. No. 1.1e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 29 CFGRKMDRISSSSGLGC 45

RESULT 28
US-11-175-690-235
;; Sequence 235, Application US/11175690
;; Publication No. US20060014254A1
;; GENERAL INFORMATION:
;; APPLICANT: Haseltine et al.
;; TITLE OF INVENTION: Albumin Fusion Proteins
;; FILE REFERENCE: PF605
;; CURRENT APPLICATION NUMBER: US/11/175,690
;; CURRENT FILING DATE: 2005-07-07
;; PRIOR APPLICATION NUMBER: PCT/US04/001369
;; PRIOR FILING DATE: 2004-01-20
;; PRIOR APPLICATION NUMBER: US 60/441,305
;; PRIOR FILING DATE: 2003-01-22
;; PRIOR APPLICATION NUMBER: US 60/453,201
;; PRIOR FILING DATE: 2003-03-11
;; PRIOR APPLICATION NUMBER: US 60/467,222
;; PRIOR FILING DATE: 2003-05-02
;; PRIOR APPLICATION NUMBER: US 60/472,816
;; PRIOR FILING DATE: 2003-05-23
;; PRIOR APPLICATION NUMBER: US 60/476,267
;; PRIOR FILING DATE: 2003-06-06
;; PRIOR APPLICATION NUMBER: US 60/505,172
;; PRIOR FILING DATE: 2003-09-24
;; PRIOR APPLICATION NUMBER: US 60/506,746
;; PRIOR FILING DATE: 2003-09-30
;; NUMBER OF SEQ ID NOS: 568
;; SOFTWARE: Patentin Ver. 2.0
;; SEQ ID NO 235
;; LENGTH: 631
;; TYPE: PRT
;; ORGANISM: Homo sapiens
US-11-175-690-235

Query Match 100.0%; Score 92; DB 7; Length 631;
Best Local Similarity 100.0%; Pred. No. 1.1e-08;

Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 CFGRKMDRISSSSGLGC 17
Db 29 CFGRKMDRISSSSGLGC 45

RESULT 29
US-11-175-690-236
;; Sequence 236, Application US/11175690
;; Publication No. US20060014254A1
;; GENERAL INFORMATION:
;; APPLICANT: Haseltine et al.
;; TITLE OF INVENTION: Albumin Fusion Proteins
;; FILE REFERENCE: PF605
;; CURRENT APPLICATION NUMBER: US/11/175,690
;; CURRENT FILING DATE: 2005-07-07
;; PRIOR APPLICATION NUMBER: PCT/US04/001369
;; PRIOR FILING DATE: 2004-01-20
;; PRIOR APPLICATION NUMBER: US 60/441,305
;; PRIOR FILING DATE: 2003-01-22
;; PRIOR APPLICATION NUMBER: US 60/453,201
;; PRIOR FILING DATE: 2003-03-11
;; PRIOR APPLICATION NUMBER: US 60/467,222
;; PRIOR FILING DATE: 2003-05-02
;; PRIOR APPLICATION NUMBER: US 60/472,816
;; PRIOR FILING DATE: 2003-05-23
;; PRIOR APPLICATION NUMBER: US 60/476,267
;; PRIOR FILING DATE: 2003-06-06
;; PRIOR APPLICATION NUMBER: US 60/505,172
;; PRIOR FILING DATE: 2003-09-24
;; PRIOR APPLICATION NUMBER: US 60/506,746
;; PRIOR FILING DATE: 2003-09-30
;; NUMBER OF SEQ ID NOS: 568
;; SOFTWARE: Patentin Ver. 2.0
;; SEQ ID NO 236
;; LENGTH: 632
;; TYPE: PRT
;; ORGANISM: Homo sapiens
US-11-175-690-236

Query Match 100.0%; Score 92; DB 7; Length 632;
Best Local Similarity 100.0%; Pred. No. 1.1e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 29 CFGRKMDRISSSSGLGC 45

RESULT 30
US-11-175-690-228
;; Sequence 228, Application US/11175690
;; Publication No. US20060014254A1
;; GENERAL INFORMATION:
;; APPLICANT: Haseltine et al.
;; TITLE OF INVENTION: Albumin Fusion Proteins
;; FILE REFERENCE: PF605
;; CURRENT APPLICATION NUMBER: US/11/175,690
;; CURRENT FILING DATE: 2005-07-07
;; PRIOR APPLICATION NUMBER: PCT/US04/001369
;; PRIOR FILING DATE: 2004-01-20
;; PRIOR APPLICATION NUMBER: US 60/441,305
;; PRIOR FILING DATE: 2003-01-22
;; PRIOR APPLICATION NUMBER: US 60/453,201
;; PRIOR FILING DATE: 2003-03-11
;; PRIOR APPLICATION NUMBER: US 60/467,222
;; PRIOR FILING DATE: 2003-05-02
;; PRIOR APPLICATION NUMBER: US 60/472,816
;; PRIOR FILING DATE: 2003-05-23
;; PRIOR APPLICATION NUMBER: US 60/476,267
;; PRIOR FILING DATE: 2003-06-06
;; PRIOR APPLICATION NUMBER: US 60/505,172

```
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 228
; LENGTH: 633
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-228

Query Match          100.0%; Score 92; DB 7; Length 633;
Best Local Similarity 100.0%; Pred. No. 1.1e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  CFGRKMDRISSSSGLGC 17
        |||||||
Db       29  CFGRKMDRISSSSGLGC 45

RESULT 31
US-11-175-690-211
; Sequence 211, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 211
; LENGTH: 641
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-211
```

```
Query Match          100.0%; Score 92; DB 7; Length 641;
Best Local Similarity 100.0%; Pred. No. 1.1e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  CFGRKMDRISSSSGLGC 17
        |||||||
Db       34  CFGRKMDRISSSSGLGC 50

RESULT 32
US-11-175-690-230
; Sequence 230, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
```

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; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 230
; LENGTH: 641
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-230

Query Match          100.0%; Score 92; DB 7; Length 641;
Best Local Similarity 100.0%; Pred. No. 1.1e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  CFGRKMDRISSSSGLGC 17
        |||||||
Db       34  CFGRKMDRISSSSGLGC 50

RESULT 33
US-11-175-690-281
; Sequence 281, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 281
; LENGTH: 661
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-281

Query Match          100.0%; Score 92; DB 7; Length 661;
Best Local Similarity 100.0%; Pred. No. 1.2e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  CFGRKMDRISSSSGLGC 17
        |||||||
```

Db 34 CFGRKMDRISSSSGLGC 50

RESULT 34

US-11-175-690-284

Sequence 284, Application US/11175690

Publication No. US20060014254A1

GENERAL INFORMATION:

APPLICANT: Haseltine et al.

TITLE OF INVENTION: Albumin Fusion Proteins

FILE REFERENCE: PF605

CURRENT APPLICATION NUMBER: US/11/175,690

CURRENT FILING DATE: 2005-07-07

PRIOR APPLICATION NUMBER: PCT/US04/001369

PRIOR FILING DATE: 2004-01-20

PRIOR APPLICATION NUMBER: US 60/441,305

PRIOR FILING DATE: 2003-01-22

PRIOR APPLICATION NUMBER: US 60/453,201

PRIOR FILING DATE: 2003-03-11

PRIOR APPLICATION NUMBER: US 60/467,222

PRIOR FILING DATE: 2003-05-02

PRIOR APPLICATION NUMBER: US 60/472,816

PRIOR FILING DATE: 2003-05-23

PRIOR APPLICATION NUMBER: US 60/476,267

PRIOR FILING DATE: 2003-06-06

PRIOR APPLICATION NUMBER: US 60/505,172

PRIOR FILING DATE: 2003-09-24

PRIOR APPLICATION NUMBER: US 60/506,746

PRIOR FILING DATE: 2003-09-30

NUMBER OF SEQ ID NOS: 568

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 284

LENGTH: 663

TYPE: PRT

ORGANISM: Homo sapiens

US-11-175-690-284

Query Match 100.0%; Score 92; DB 7; Length 663;

Best Local Similarity 100.0%; Pred. No. 1.2e-08;

Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17

Db 34 CFGRKMDRISSSSGLGC 50

RESULT 35

US-11-175-690-282

Sequence 282, Application US/11175690

Publication No. US20060014254A1

GENERAL INFORMATION:

APPLICANT: Haseltine et al.

TITLE OF INVENTION: Albumin Fusion Proteins

FILE REFERENCE: PF605

CURRENT APPLICATION NUMBER: US/11/175,690

CURRENT FILING DATE: 2005-07-07

PRIOR APPLICATION NUMBER: PCT/US04/001369

PRIOR FILING DATE: 2004-01-20

PRIOR APPLICATION NUMBER: US 60/441,305

PRIOR FILING DATE: 2003-01-22

PRIOR APPLICATION NUMBER: US 60/453,201

PRIOR FILING DATE: 2003-03-11

PRIOR APPLICATION NUMBER: US 60/467,222

PRIOR FILING DATE: 2003-05-02

PRIOR APPLICATION NUMBER: US 60/472,816

PRIOR FILING DATE: 2003-05-23

PRIOR APPLICATION NUMBER: US 60/476,267

PRIOR FILING DATE: 2003-06-06

PRIOR APPLICATION NUMBER: US 60/505,172

PRIOR FILING DATE: 2003-09-24

PRIOR APPLICATION NUMBER: US 60/506,746

PRIOR FILING DATE: 2003-09-30

NUMBER OF SEQ ID NOS: 568

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 282

LENGTH: 665

TYPE: PRT

ORGANISM: Homo sapiens

US-11-175-690-282

Query Match 100.0%; Score 92; DB 7; Length 665;

Best Local Similarity 100.0%; Pred. No. 1.2e-08;

Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17

Db 34 CFGRKMDRISSSSGLGC 50

RESULT 36

US-11-175-690-227

Sequence 227, Application US/11175690

Publication No. US20060014254A1

GENERAL INFORMATION:

APPLICANT: Haseltine et al.

TITLE OF INVENTION: Albumin Fusion Proteins

FILE REFERENCE: PF605

CURRENT APPLICATION NUMBER: US/11/175,690

CURRENT FILING DATE: 2005-07-07

PRIOR APPLICATION NUMBER: PCT/US04/001369

PRIOR FILING DATE: 2004-01-20

PRIOR APPLICATION NUMBER: US 60/441,305

PRIOR FILING DATE: 2003-01-22

PRIOR APPLICATION NUMBER: US 60/453,201

PRIOR FILING DATE: 2003-03-11

PRIOR APPLICATION NUMBER: US 60/467,222

PRIOR FILING DATE: 2003-05-02

PRIOR APPLICATION NUMBER: US 60/472,816

PRIOR FILING DATE: 2003-05-23

PRIOR APPLICATION NUMBER: US 60/476,267

PRIOR FILING DATE: 2003-06-06

PRIOR APPLICATION NUMBER: US 60/505,172

PRIOR FILING DATE: 2003-09-24

PRIOR APPLICATION NUMBER: US 60/506,746

PRIOR FILING DATE: 2003-09-30

NUMBER OF SEQ ID NOS: 568

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 227

LENGTH: 667

TYPE: PRT

ORGANISM: Homo sapiens

US-11-175-690-227

Query Match 100.0%; Score 92; DB 7; Length 667;

Best Local Similarity 100.0%; Pred. No. 1.2e-08;

Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17

Db 34 CFGRKMDRISSSSGLGC 50

RESULT 37

US-11-175-690-283

Sequence 283, Application US/11175690

Publication No. US20060014254A1

GENERAL INFORMATION:

APPLICANT: Haseltine et al.

TITLE OF INVENTION: Albumin Fusion Proteins

FILE REFERENCE: PF605

CURRENT APPLICATION NUMBER: US/11/175,690

CURRENT FILING DATE: 2005-07-07

PRIOR APPLICATION NUMBER: PCT/US04/001369

PRIOR FILING DATE: 2004-01-20

PRIOR APPLICATION NUMBER: US 60/441,305

PRIOR FILING DATE: 2003-01-22

RESULT 39

```

: GENERAL INFORMATION:
:
: APPLICANT: Haseltine et al.
: TITLE OF INVENTION: Albumin Fusion Proteins
: FILE REFERENCE: PF605
: CURRENT APPLICATION NUMBER: US/11/175,690
: CURRENT FILING DATE: 2005-07-07
: PRIOR APPLICATION NUMBER: PCT/US04/001369
: PRIOR FILING DATE: 2004-01-20
: PRIOR APPLICATION NUMBER: US 60/441,305
: PRIOR FILING DATE: 2003-01-22
: PRIOR APPLICATION NUMBER: US 60/453,201
: PRIOR FILING DATE: 2003-03-11
: PRIOR APPLICATION NUMBER: US 60/467,222
: PRIOR FILING DATE: 2003-05-02
: PRIOR APPLICATION NUMBER: US 60/472,816
: PRIOR FILING DATE: 2003-05-23
: PRIOR APPLICATION NUMBER: US 60/476,267
: PRIOR FILING DATE: 2003-06-06
: PRIOR APPLICATION NUMBER: US 60/505,172
: PRIOR FILING DATE: 2003-09-24
: PRIOR APPLICATION NUMBER: US 60/506,746
: PRIOR FILING DATE: 2003-09-30
: NUMBER OF SEQ ID NOS: 568
: SOFTWARE: PatentIn Ver. 2.0
: SEQ ID NO 231
: LENGTH: 673
: TYPE: PRT

```

ORGANISM: Homo sapiens
US-11-175-690-231

Query Match 100.0%; Score 92; DB 7; Length 673;
Best Local Similarity 100.0%; Pred. No. 1.2e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISSSSGLGC 17
DB 34 CFCGRKMDRISSSSGLGC 50

RESULT 41
US-10-510-880-2
; Sequence 2, Application US/10510880
; Publication No. US20050244902A1
; GENERAL INFORMATION:
; APPLICANT: Rehfeld, Jens F.
; APPLICANT: Goetze, Jens Peter
; APPLICANT: Righespositalet
; TITLE OF INVENTION: Methods for determining levels of human
; FILE REFERENCE: 271212000200
; CURRENT APPLICATION NUMBER: US/10/510,880
; PRIOR FILING DATE: 2004-10-08
; PRIOR APPLICATION NUMBER: PCT/DK03/00250
; PRIOR FILING DATE: 2003-04-11
; PRIOR APPLICATION NUMBER: PS1692
; PRIOR FILING DATE: 2002-04-11
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 131
; TYPE: PRT
; ORGANISM: Sus scrofa
US-10-510-880-2

Query Match 82.6%; Score 76; DB 6; Length 131;
Best Local Similarity 76.5%; Pred. No. 1.4e-06;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISSSSGLGC 17
DB 109 CFCGRKMDRISSSSGLGC 125

RESULT 42
US-10-977-334-5
; Sequence 5, Application US/10977334
; Publication No. US20050244904A1
; GENERAL INFORMATION:
; APPLICANT: NG, LEONG
; TITLE OF INVENTION: DIAGNOSTICS BASED ON SIGNAL PEPTIDE DETECTION
; FILE REFERENCE: ISA-016.01
; CURRENT APPLICATION NUMBER: US/10/977,334
; CURRENT FILING DATE: 2004-10-29
; PRIOR APPLICATION NUMBER: 60/542,647
; PRIOR FILING DATE: 2004-02-06
; PRIOR APPLICATION NUMBER: GB 0325279.8
; PRIOR FILING DATE: 2003-10-29
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 5
; LENGTH: 126
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-977-334-5

Query Match 79.3%; Score 73; DB 6; Length 126;
Best Local Similarity 76.5%; Pred. No. 4.5e-06;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISSSSGLGC 17

DB 110 CFCGLKLDRISSSSGLGC 126

RESULT 43
US-11-112-277-16
; Sequence 16, Application US/11112277
; Publication No. US20050267293A1
; GENERAL INFORMATION:
; APPLICANT: Bousquet-Gagnon, Nathalie
; APPLICANT: Quraishi, Omar
; APPLICANT: Bridon, Dominique P.
; TITLE OF INVENTION: METHOD FOR THE PURIFICATION OF ALBUMIN
; TITLE OF INVENTION: CONJUGATES
; FILE REFERENCE: 500862003700
; CURRENT APPLICATION NUMBER: US/11/112,277
; CURRENT FILING DATE: 2005-04-22
; PRIOR APPLICATION NUMBER: US 60/565,228
; PRIOR FILING DATE: 2004-04-23
; NUMBER OF SEQ ID NOS: 53
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 16
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: ANP Analogue
; NAME/KEY: MOD_RES
; LOCATION: 1
; OTHER INFORMATION: Xaa is Ser linked to ABEA-MPA
US-11-112-277-16

Query Match 77.2%; Score 71; DB 7; Length 28;
Best Local Similarity 70.6%; Pred. No. 2.1e-06;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISSSSGLGC 17
DB 7 CFCGRMDRIGAQSGLGC 23

RESULT 44
US-11-112-277-50
; Sequence 50, Application US/11112277
; Publication No. US20050267293A1
; GENERAL INFORMATION:
; APPLICANT: Bousquet-Gagnon, Nathalie
; APPLICANT: Quraishi, Omar
; APPLICANT: Bridon, Dominique P.
; TITLE OF INVENTION: METHOD FOR THE PURIFICATION OF ALBUMIN
; TITLE OF INVENTION: CONJUGATES
; FILE REFERENCE: 500862003700
; CURRENT APPLICATION NUMBER: US/11/112,277
; CURRENT FILING DATE: 2005-04-22
; PRIOR APPLICATION NUMBER: US 60/565,228
; PRIOR FILING DATE: 2004-04-23
; NUMBER OF SEQ ID NOS: 53
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 50
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: ANP Analogue
; NAME/KEY: MOD_RES
; LOCATION: 1
; OTHER INFORMATION: Xaa is Ser linked to MPA
US-11-112-277-50

Query Match 77.2%; Score 71; DB 7; Length 28;
Best Local Similarity 70.6%; Pred. No. 2.1e-06;

Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||| : |||| : ||||
Db 7 CFGRMDRIGAQSGLGC 23

RESULT 45

US-11-112-277-51
; Sequence 51, Application US/11112277
; Publication No. US20050267293A1
; GENERAL INFORMATION:
; APPLICANT: Bousquet-Gagnon, Nathalie
; APPLICANT: Quraishi, Omar
; APPLICANT: Bridon, Dominique P.
; TITLE OF INVENTION: METHOD FOR THE PURIFICATION OF ALBUMIN
; TITLE OF INVENTION: CONJUGATES
; FILE REFERENCE: 500862003700
; CURRENT APPLICATION NUMBER: US/11/112,277
; CURRENT FILING DATE: 2005-04-22
; PRIOR APPLICATION NUMBER: US 60/565,228
; PRIOR FILING DATE: 2004-04-23
; NUMBER OF SEQ ID NOS: 53
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 51
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: ANP Analogue
; NAME/KEY: MOD_RES
; LOCATION: 1
; OTHER INFORMATION: Xaa is Ser linked to EEEP-MPA
US-11-112-277-51

Query Match 77.2%; Score 71; DB 7; Length 28;
Best Local Similarity 70.6%; Pred. No. 2.1e-06;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||| : |||| : ||||
Db 7 CFGRMDRIGAQSGLGC 23

RESULT 46

US-11-059-814-4
; Sequence 4, Application US/11059814
; Publication No. US20050272650A1
; GENERAL INFORMATION:
; APPLICANT: University of South Florida
; APPLICANT: Mohapatra, Shyam
; TITLE OF INVENTION: Materials and Methods for Treatment of Inflammatory and Cell
; TITLE OF INVENTION: Proliferation Disorders
; FILE REFERENCE: USF-215PTCZ
; CURRENT APPLICATION NUMBER: US/11/059,814
; CURRENT FILING DATE: 2005-02-17
; PRIOR APPLICATION NUMBER: 60/521,072
; PRIOR FILING DATE: 2004-02-17
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 4
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-059-814-4

Query Match 77.2%; Score 71; DB 7; Length 28;
Best Local Similarity 70.6%; Pred. No. 2.1e-06;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||| : |||| : ||||

Db 7 CFGRMDRIGAQSGLGC 23

RESULT 47

US-11-175-690-309
; Sequence 309, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 309
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-309

Query Match 77.2%; Score 71; DB 7; Length 28;
Best Local Similarity 70.6%; Pred. No. 2.1e-06;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||| : |||| : ||||
Db 7 CFGRMDRIGAQSGLGC 23

RESULT 48

US-11-059-814-7
; Sequence 7, Application US/11059814
; Publication No. US20050272650A1
; GENERAL INFORMATION:
; APPLICANT: University of South Florida
; APPLICANT: Mohapatra, Shyam
; TITLE OF INVENTION: Materials and Methods for Treatment of Inflammatory and Cell
; TITLE OF INVENTION: Proliferation Disorders
; FILE REFERENCE: USF-215PTCZ
; CURRENT APPLICATION NUMBER: US/11/059,814
; CURRENT FILING DATE: 2005-02-17
; PRIOR APPLICATION NUMBER: 60/521,072
; PRIOR FILING DATE: 2004-02-17
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 7
; LENGTH: 151
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-059-814-7

Query Match 77.2%; Score 71; DB 7; Length 151;
Best Local Similarity 70.6%; Pred. No. 1.2e-05;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17

Db 130 CFGRMDRIGASGLGC 146
||| :||| : |||||

RESULT 49
US-10-977-334-4
; Sequence 4, Application US/10977334
; Publication No. US20050244904A1
; GENERAL INFORMATION:
; APPLICANT: NG, LEONG
; TITLE OF INVENTION: DIAGNOSTICS BASED ON SIGNAL PEPTIDE DETECTION
; FILE REFERENCE: ISA-016.01
; CURRENT APPLICATION NUMBER: US/10/977,334
; CURRENT FILING DATE: 2004-10-29
; PRIOR APPLICATION NUMBER: 60/542,647
; PRIOR FILING DATE: 2004-02-06
; PRIOR APPLICATION NUMBER: GB 0325279.8
; PRIOR FILING DATE: 2003-10-29
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: Patentin Ver. 3.3
; SEQ ID NO 4
; LENGTH: 153
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-977-334-4

Query Match 77.2%; Score 71; DB 6; Length 153;
Best Local Similarity 70.6%; Pred. No. 1.2e-05;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRMDRISSSSGLGC 17
||| :||| : |||||
Db 130 CFGRMDRIGASGLGC 146

RESULT 50
US-11-175-690-222
; Sequence 222, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 222
; LENGTH: 637
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-222

Query Match 77.2%; Score 71; DB 7; Length 637;
Best Local Similarity 70.6%; Pred. No. 5.5e-05;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRMDRISSSSGLGC 17
||| :||| : |||||
Db 31 CFGRMDRIGASGLGC 47
Search completed: January 25, 2006, 18:50:06
Job time : 10 secs

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OM protein - protein search, using sw model

Run on: January 25, 2006, 18:42:42 ; Search time 16 Seconds

(without alignments)

102.230 Million cell updates/sec

Title: US-10-737-290-172

Perfect score: 92

Sequence: 1 CPGKRWDRISSSGLGC 17

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 1000 summaries

Database : PIR 80.*

1: piri.*

2: piri2.*

3: piri3.*

4: piri4.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query Match | Length | ID | Description |
|------------|-------|-------------|--------|----------|--------------------|
| 1 | 92 | 100.0 | 134 | 1 AWHUB | natriuretic peptid |
| 2 | 76 | 82.6 | 27 | 2 JC1081 | brain natriuretic |
| 3 | 76 | 82.6 | 103 | 2 A41403 | aldosterone secret |
| 4 | 76 | 82.6 | 105 | 2 B36736 | brain natriuretic |
| 5 | 76 | 82.6 | 131 | 2 A31676 | brain natriuretic |
| 6 | 76 | 82.6 | 131 | 2 A33873 | brain natriuretic |
| 7 | 74 | 80.4 | 38 | 2 S71381 | lebetin 2 isoform |
| 8 | 73 | 79.3 | 126 | 1 A36155 | natriuretic peptid |
| 9 | 73 | 79.3 | 126 | 1 AWHUC | natriuretic peptid |
| 10 | 73 | 79.3 | 126 | 2 A55688 | natriuretic peptid |
| 11 | 73 | 79.3 | 126 | 2 S12988 | brain natriuretic |
| 12 | 73 | 79.3 | 140 | 1 S14320 | alpha-atrial natri |
| 13 | 72 | 78.3 | 22 | 2 JT0581 | natriuretic peptid |
| 14 | 72 | 78.3 | 22 | 2 A35418 | brain natriuretic |
| 15 | 72 | 78.3 | 27 | 2 A34431 | atrial natriuretic |
| 16 | 72 | 78.3 | 36 | 2 S15821 | ventricular natriu |
| 17 | 71 | 77.2 | 149 | 1 AWDG | atrial natriuretic |
| 18 | 71 | 77.2 | 150 | 1 S13107 | atrial natriuretic |
| 19 | 71 | 77.2 | 151 | 1 AWHU | natriuretic peptid |
| 20 | 71 | 77.2 | 152 | 1 AWHB | atrial natriuretic |
| 21 | 71 | 77.2 | 153 | 2 S14873 | atrial natriuretic |
| 22 | 71 | 77.2 | 161 | 4 I55480 | hypothetical natri |
| 23 | 70 | 76.1 | 118 | 2 B54119 | C-type natriuretic |
| 24 | 70 | 76.1 | 135 | 1 A61244 | natriuretic peptid |
| 25 | 69 | 75.0 | 115 | 1 S15822 | natriuretic peptid |
| 26 | 68 | 73.9 | 22 | 2 A36399 | C-type natriuretic |
| 27 | 68 | 73.9 | 129 | 1 A54119 | C-type natriuretic |
| 28 | 67 | 72.8 | 152 | 1 AWHMS | atrial natriuretic |
| 29 | 67 | 72.8 | 152 | 1 AWR7 | atrial natriuretic |

| | | | | | |
|---------------------|------|------|-----|------|--------|
| atrial natriuretic | 153 | 72.8 | 67 | 30 | AWRB |
| atrial natriuretic | 30 | 71.7 | 66 | 31 | S01657 |
| atrial natriuretic | 145 | 71.7 | 66 | 32 | JQ0947 |
| type-B natriuretic | 121 | 70.7 | 65 | 33 | A49144 |
| brain natriuretic | 121 | 70.7 | 65 | 34 | I49548 |
| atrial natriuretic | 128 | 70.7 | 65 | 35 | S14872 |
| natriuretic peptid | 38 | 68.5 | 65 | 36 | A42974 |
| brain natriuretic | 121 | 68.5 | 63 | 37 | A30162 |
| acetyl-CoA:acetoac | 496 | 47.8 | 38 | 44 | AH3254 |
| F12G12.17 protein | 231 | 46.7 | 43 | 43 | H86463 |
| hypothetical prote | 522 | 46.7 | 40 | 43 | T24265 |
| pyruvate synthase | 273 | 45.7 | 41 | 42 | F64593 |
| chain of 2-oxoglut | 273 | 45.7 | 42 | 42 | H71919 |
| serine/threonine-s | 436 | 45.7 | 42 | 43 | T51402 |
| yahr protein - Esc | 148 | 44.6 | 44 | 44 | D64760 |
| transcription regu | 307 | 44.6 | 45 | 41 | T41462 |
| probable acyl-CoA | 523 | 44.6 | 46 | 41 | B95358 |
| hypothetical prote | 738 | 44.6 | 47 | 41 | B87627 |
| alpha-galactosidas | 746 | 44.6 | 48 | 41 | S74219 |
| bacteriophage prot | 757 | 44.6 | 49 | 41 | AF1755 |
| probable outer mem | 797 | 44.6 | 50 | 41 | H83190 |
| hypothetical prote | 970 | 44.0 | 51 | 40.5 | C84488 |
| hypothetical prote | 163 | 43.5 | 52 | 40 | T48772 |
| probable brain rya | 683 | 43.5 | 53 | 40 | I47214 |
| serine/threonine-s | 707 | 43.5 | 54 | 40 | T38254 |
| drebrin A - rat | 2703 | 43.5 | 55 | 40 | S60588 |
| hemagglutinin/hemo | 4859 | 43.5 | 56 | 40 | H81193 |
| ryanodine receptor | 2 | 43.5 | 57 | 40 | S74173 |
| ryanodine receptor | 2 | 43.5 | 58 | 40 | S66572 |
| ryanodine receptor | 2 | 43.5 | 59 | 40 | S27272 |
| hemolysin A precu | 1577 | 42.9 | 60 | 39.5 | A35140 |
| hypothetical prote | 107 | 42.4 | 61 | 39 | B71069 |
| hypothetical prote | 126 | 42.4 | 62 | 39 | T21199 |
| exodeoxyribonucle | 267 | 42.4 | 63 | 39 | C97690 |
| exodeoxyribonucle | 267 | 42.4 | 64 | 39 | AH2915 |
| hypothetical prote | 327 | 42.4 | 65 | 39 | S55628 |
| hypothetical prote | 338 | 42.4 | 66 | 39 | G96685 |
| hypothetical prote | 444 | 42.4 | 67 | 39 | T24204 |
| probable PPE prote | 590 | 42.4 | 68 | 39 | E70946 |
| probable oxidoredu | 747 | 42.4 | 69 | 39 | B95363 |
| translation elonga | 813 | 42.4 | 70 | 39 | T40622 |
| agglutinin-like pr | 1260 | 42.4 | 71 | 39 | S60896 |
| filamentous hemagg | 3591 | 42.4 | 72 | 39 | S21010 |
| RNA-directed DNA p | 1051 | 41.8 | 73 | 38.5 | B27672 |
| hypothetical prote | 1330 | 41.8 | 74 | 38.5 | C84716 |
| hypothetical prote | 246 | 41.3 | 75 | 38 | T08584 |
| probable phosphate | 319 | 41.3 | 76 | 38 | G81409 |
| other proteins homo | 319 | 41.3 | 77 | 38 | AD1108 |
| conserved hypothet | 349 | 41.3 | 78 | 38 | AE1469 |
| lectin-like protei | 353 | 41.3 | 79 | 38 | E95858 |
| alpha-complex prot | 563 | 41.3 | 80 | 38 | T45949 |
| choline transport | 556 | 41.3 | 81 | 38 | S58529 |
| probable translati | 683 | 41.3 | 82 | 38 | S11175 |
| hypothetical prote | 803 | 41.3 | 83 | 38 | C71322 |
| translation elonga | 819 | 41.3 | 84 | 38 | S45916 |
| two component sens | 893 | 41.3 | 85 | 38 | S43748 |
| two-component sens | 900 | 41.3 | 86 | 38 | AG3022 |
| calmodulin-binding | 1022 | 41.3 | 87 | 38 | C98262 |
| pol protein - silk | 1067 | 41.3 | 88 | 38 | T51257 |
| phycochrome A - Po | 1125 | 41.3 | 89 | 38 | T18196 |
| P Type Copper ATPa | 904 | 40.8 | 90 | 38 | T09835 |
| F17F16.1 protein - | 2142 | 40.8 | 91 | 37.5 | T40072 |
| hypothetical prote | 77 | 40.2 | 92 | 37.5 | D86303 |
| hypothetical prote | 127 | 40.2 | 93 | 37 | H83974 |
| hypothetical prote | 138 | 40.2 | 94 | 37 | G84720 |
| hypothetical prote | 164 | 40.2 | 95 | 37 | D72727 |
| hypothetical prote | 187 | 40.2 | 96 | 37 | B27773 |
| hypothetical prote | 213 | 40.2 | 97 | 37 | S69569 |
| probable permealase | 260 | 40.2 | 98 | 37 | G86195 |
| hypothetical prote | 260 | 40.2 | 99 | 37 | E98219 |
| hypothetical prote | 267 | 40.2 | 100 | 37 | AE3067 |
| corfocortropin / li | 281 | 40.2 | 101 | 37 | CTHUP |
| 2-oxoglutarate syn | 281 | 40.2 | 102 | 37 | A81400 |

| | | | | | | | | | | | | | |
|-----|------|------|------|---|--------|--------------------|-----|------|------|------|---|--------|--------------------|
| 103 | 37 | 40.2 | 286 | 2 | A69005 | 2-oxoglutarate syn | 176 | 36 | 39.1 | 475 | 2 | S48132 | metalloproteinase |
| 104 | 37 | 40.2 | 303 | 2 | F82549 | hypothetical prote | 177 | 36 | 39.1 | 478 | 1 | C42790 | cystathionine beta |
| 105 | 37 | 40.2 | 307 | 2 | JC5036 | hypothetical prote | 178 | 36 | 39.1 | 488 | 2 | T10258 | gag polyprotein ho |
| 106 | 37 | 40.2 | 317 | 2 | C70863 | hypothetical prote | 179 | 36 | 39.1 | 490 | 2 | S49792 | probable membrane |
| 107 | 37 | 40.2 | 332 | 2 | T26436 | hypothetical prote | 180 | 36 | 39.1 | 496 | 2 | JC5261 | hypothetical prote |
| 108 | 37 | 40.2 | 339 | 2 | T23114 | hypothetical prote | 181 | 36 | 39.1 | 504 | 2 | T21377 | salt-tolerant prot |
| 109 | 37 | 40.2 | 361 | 2 | A86386 | probable DNA-bind | 182 | 36 | 39.1 | 524 | 2 | S66467 | alkaline phosphata |
| 110 | 37 | 40.2 | 373 | 2 | A84699 | hypothetical prote | 183 | 36 | 39.1 | 551 | 2 | A12964 | hypothetical prote |
| 111 | 37 | 40.2 | 376 | 2 | A75381 | peptide ABC transp | 184 | 36 | 39.1 | 561 | 1 | A42790 | cystathionine beta |
| 112 | 37 | 40.2 | 468 | 2 | T40223 | HMG-box containi | 185 | 36 | 39.1 | 564 | 2 | T42695 | hypothetical prote |
| 113 | 37 | 40.2 | 468 | 2 | A41518 | transcription fact | 186 | 36 | 39.1 | 579 | 2 | T50228 | conserved hypothet |
| 114 | 37 | 40.2 | 508 | 2 | G81205 | sodium/proline sym | 187 | 36 | 39.1 | 593 | 1 | JT0742 | tartarone-semiald |
| 115 | 37 | 40.2 | 589 | 2 | D81902 | probable sulfite r | 188 | 36 | 39.1 | 593 | 2 | AH0566 | glyoxylate carboli |
| 116 | 37 | 40.2 | 594 | 2 | D96015 | probable tartronat | 189 | 36 | 39.1 | 593 | 2 | C85550 | glyoxylate carboli |
| 117 | 37 | 40.2 | 624 | 2 | T41341 | probable serine-th | 190 | 36 | 39.1 | 601 | 2 | G96558 | probable protein k |
| 118 | 37 | 40.2 | 776 | 2 | T02584 | probable protein k | 191 | 36 | 39.1 | 601 | 2 | G96558 | hypothetical prote |
| 119 | 37 | 40.2 | 783 | 2 | E96652 | protein F23N19.11 | 192 | 36 | 39.1 | 607 | 2 | S53387 | hypothetical prote |
| 120 | 37 | 40.2 | 787 | 2 | S35701 | translation elonga | 193 | 36 | 39.1 | 617 | 2 | T23014 | hypothetical prote |
| 121 | 37 | 40.2 | 818 | 2 | S62790 | mismatch DNA recog | 194 | 36 | 39.1 | 619 | 2 | T48557 | hypothetical prote |
| 122 | 37 | 40.2 | 970 | 2 | JQ0302 | hypothetical 112K | 195 | 36 | 39.1 | 622 | 2 | T27155 | hypothetical prote |
| 123 | 37 | 40.2 | 1075 | 2 | A57377 | transcription fact | 196 | 36 | 39.1 | 690 | 2 | D98318 | ABC protein AGR_L |
| 124 | 37 | 40.2 | 1247 | 2 | T31331 | nitric-oxide synth | 197 | 36 | 39.1 | 691 | 2 | A71520 | hypothetical prote |
| 125 | 37 | 40.2 | 1258 | 2 | T29041 | hypothetical prote | 198 | 36 | 39.1 | 694 | 2 | A83126 | probable TonB-depe |
| 126 | 37 | 40.2 | 1261 | 2 | T13165 | mutator 2 - fruit | 199 | 36 | 39.1 | 752 | 2 | AC3624 | acriflavin resista |
| 127 | 37 | 40.2 | 2143 | 2 | G96595 | hypothetical prote | 200 | 36 | 39.1 | 755 | 1 | QOAG4T | tryptophan 2-mono |
| 128 | 37 | 40.2 | 2510 | 2 | T28160 | hypothetical prote | 201 | 36 | 39.1 | 763 | 2 | S23457 | polysulfide reduct |
| 129 | 37 | 40.2 | 5032 | 1 | A35041 | ryanodine receptor | 202 | 36 | 39.1 | 770 | 2 | G02228 | DOC-2 - human |
| 130 | 37 | 40.2 | 5035 | 1 | I46646 | ryanodine receptor | 203 | 36 | 39.1 | 798 | 2 | C96658 | probable RNA helic |
| 131 | 37 | 40.2 | 5037 | 1 | A54161 | ryanodine-binding | 204 | 36 | 39.1 | 818 | 2 | T31464 | stage II sporulati |
| 132 | 37 | 40.2 | 5037 | 2 | B35041 | ryanodine receptor | 205 | 36 | 39.1 | 822 | 2 | T33163 | hypothetical prote |
| 133 | 36.5 | 39.7 | 140 | 2 | S20914 | lysosome (EC 3.2.1 | 206 | 36 | 39.1 | 824 | 2 | T51057 | related to tol pro |
| 134 | 36.5 | 39.7 | 140 | 2 | S41573 | protein F26F24.22 | 207 | 36 | 39.1 | 845 | 2 | E84488 | probable RNA helic |
| 135 | 36.5 | 39.7 | 424 | 2 | E86367 | anthranilate synth | 208 | 36 | 39.1 | 860 | 2 | JC5702 | ErbB kinase activa |
| 136 | 36.5 | 39.7 | 729 | 2 | AH2857 | anthranilate synth | 209 | 36 | 39.1 | 868 | 2 | JC5701 | ErbB kinase activa |
| 137 | 36.5 | 39.7 | 729 | 2 | F97634 | ribosomal protein | 210 | 36 | 39.1 | 902 | 2 | T26775 | hypothetical prote |
| 138 | 36 | 39.1 | 57 | 2 | C97283 | probable membrane | 211 | 36 | 39.1 | 956 | 2 | S30834 | hypothetical prote |
| 139 | 36 | 39.1 | 107 | 2 | S52508 | hypothetical prote | 212 | 36 | 39.1 | 964 | 2 | T05382 | hypothetical prote |
| 140 | 36 | 39.1 | 118 | 2 | T08723 | chondromodulin II | 213 | 36 | 39.1 | 1392 | 1 | YGBVAD | L-aminoadipate-sem |
| 141 | 36 | 39.1 | 133 | 2 | JH0270 | conserved hypothet | 214 | 36 | 39.1 | 1507 | 2 | A40228 | neurexin I-alpha p |
| 142 | 36 | 39.1 | 164 | 2 | E69874 | hypothetical prote | 215 | 36 | 39.1 | 1530 | 2 | I45944 | neurexin I-alpha - |
| 143 | 36 | 39.1 | 183 | 2 | C83913 | hypothetical prote | 216 | 36 | 39.1 | 1753 | 2 | T00350 | hypothetical prote |
| 144 | 36 | 39.1 | 198 | 2 | T28814 | hypothetical prote | 217 | 36 | 39.1 | 1958 | 2 | T39808 | hypothetical prote |
| 145 | 36 | 39.1 | 201 | 2 | F72390 | hypothetical prote | 218 | 36 | 39.1 | 2023 | 2 | T13154 | polycarb protein e |
| 146 | 36 | 39.1 | 233 | 1 | VH0UPT | nucleocapsid prote | 219 | 36 | 39.1 | 2195 | 2 | T34264 | hypothetical prote |
| 147 | 36 | 39.1 | 262 | 2 | AE2607 | conserved hypothet | 220 | 36 | 39.1 | 4767 | 2 | T31345 | hypothetical prote |
| 148 | 36 | 39.1 | 263 | 2 | H83042 | hypothetical prote | 221 | 36 | 39.1 | 4868 | 2 | B54161 | ryanodine-binding |
| 149 | 36 | 39.1 | 265 | 2 | C69978 | glutamate racemase | 222 | 35.5 | 38.6 | 91 | 4 | S14968 | hypothetical NADH |
| 150 | 36 | 39.1 | 266 | 2 | T05471 | hypothetical prote | 223 | 35.5 | 38.6 | 146 | 2 | E84489 | 40S ribosomal prot |
| 151 | 36 | 39.1 | 272 | 2 | D97189 | hypothetical prote | 224 | 35.5 | 38.6 | 196 | 2 | D96546 | hypothetical prote |
| 152 | 36 | 39.1 | 288 | 2 | E83946 | pyruvate synthase | 225 | 35.5 | 38.6 | 297 | 2 | B83681 | ABC transporter (p |
| 153 | 36 | 39.1 | 293 | 2 | AE0977 | probable sugar kin | 226 | 35.5 | 38.6 | 485 | 2 | JC4363 | glucagon receptor |
| 154 | 36 | 39.1 | 307 | 2 | AG2017 | glycerol-3-phospha | 227 | 35.5 | 38.6 | 485 | 2 | QJ1957 | glucagon receptor |
| 155 | 36 | 39.1 | 309 | 2 | E84672 | hypothetical prote | 228 | 35.5 | 38.6 | 500 | 2 | T04737 | cytochrome P450 ho |
| 156 | 36 | 39.1 | 320 | 2 | PN0090 | aspergillopepsin I | 229 | 35.5 | 38.6 | 500 | 2 | T52175 | cytochrome P450 mo |
| 157 | 36 | 39.1 | 321 | 2 | D96035 | probable transposa | 230 | 35.5 | 38.6 | 849 | 1 | UYPVAD | noncapsid protein |
| 158 | 36 | 39.1 | 321 | 2 | E96025 | probable transposa | 231 | 35.5 | 38.6 | 1055 | 2 | T10432 | DNA-directed RNA p |
| 159 | 36 | 39.1 | 329 | 2 | A84529 | hypothetical prote | 232 | 35.5 | 38.6 | 1884 | 2 | JC4975 | plexin 2 precursor |
| 160 | 36 | 39.1 | 333 | 2 | H85551 | hypothetical prote | 233 | 35.5 | 38.6 | 2437 | 2 | S42612 | transmembrane prot |
| 161 | 36 | 39.1 | 333 | 2 | E90701 | hypothetical prote | 234 | 35 | 38.0 | 70 | 2 | C83620 | hypothetical prote |
| 162 | 36 | 39.1 | 333 | 2 | F64783 | hypothetical prote | 235 | 35 | 38.0 | 98 | 2 | C97285 | ribosomal protein |
| 163 | 36 | 39.1 | 338 | 2 | S34854 | epidermal growth f | 236 | 35 | 38.0 | 99 | 2 | S60230 | gibberellin-regula |
| 164 | 36 | 39.1 | 338 | 2 | S10471 | CMGI protein - rat | 237 | 35 | 38.0 | 111 | 2 | B26567 | nitrogen regulator |
| 165 | 36 | 39.1 | 339 | 2 | B39590 | TpA-induced protei | 238 | 35 | 38.0 | 113 | 2 | AH3371 | thioredoxin-disulf |
| 166 | 36 | 39.1 | 394 | 2 | JC4052 | aspergillopepsin I | 239 | 35 | 38.0 | 117 | 2 | F82589 | hypothetical prote |
| 167 | 36 | 39.1 | 394 | 2 | PS0140 | aspergillopepsin I | 240 | 35 | 38.0 | 129 | 2 | T20081 | hypothetical prote |
| 168 | 36 | 39.1 | 394 | 2 | T20778 | hypothetical prote | 241 | 35 | 38.0 | 181 | 2 | S44765 | C2984.9 protein - |
| 169 | 36 | 39.1 | 406 | 2 | S60962 | hypothetical prote | 242 | 35 | 38.0 | 186 | 2 | B83491 | probable transcrip |
| 170 | 36 | 39.1 | 413 | 1 | VHVN1H | nucleoprotein - in | 243 | 35 | 38.0 | 194 | 2 | A55099 | muscle LIM protein |
| 171 | 36 | 39.1 | 413 | 2 | T43017 | probable prephenat | 244 | 35 | 38.0 | 196 | 2 | G83360 | probable transcrip |
| 172 | 36 | 39.1 | 425 | 2 | T44592 | Atp/Grp-binding pr | 245 | 35 | 38.0 | 206 | 2 | AB0727 | probable membrane |
| 173 | 36 | 39.1 | 431 | 2 | T41005 | prephenate dehydro | 246 | 35 | 38.0 | 206 | 2 | C90945 | hypothetical prote |
| 174 | 36 | 39.1 | 453 | 2 | D69829 | Na+/H+-exchangin | 247 | 35 | 38.0 | 206 | 2 | E64943 | probable membrane |
| 175 | 36 | 39.1 | 468 | 2 | B40228 | neurexin I-beta pr | 248 | 35 | 38.0 | 206 | 2 | F85793 | hypothetical prote |

| | | | | | | | | | | | | | |
|-----|----|------|------|---|---------|---------------------|-----|------|------|------|---|--------|---------------------|
| 249 | 35 | 38.0 | 208 | 2 | T16343 | hypothetical prote | 322 | 35 | 38.0 | 1021 | 2 | H75423 | hypothetical prote |
| 250 | 35 | 38.0 | 208 | 2 | WMNV26 | hypothetical prote | 323 | 35 | 38.0 | 1059 | 2 | T12195 | sucrose-phosphate |
| 251 | 35 | 38.0 | 230 | 1 | WMNV26 | p26 protein [simil | 324 | 35 | 38.0 | 1095 | 2 | T25520 | hypothetical prote |
| 252 | 35 | 38.0 | 248 | 2 | T33230 | hypothetical prote | 325 | 35 | 38.0 | 1113 | 2 | T20004 | hypothetical prote |
| 253 | 35 | 38.0 | 267 | 2 | B72408 | conserved hypothet | 326 | 35 | 38.0 | 1122 | 1 | FKMUA | phytochrome A - Ar |
| 254 | 35 | 38.0 | 272 | 2 | T08762 | hypothetical prote | 327 | 35 | 38.0 | 1122 | 2 | D86229 | phytochrome A [imp |
| 255 | 35 | 38.0 | 274 | 2 | G70653 | hypothetical prote | 328 | 35 | 38.0 | 1123 | 2 | S20497 | phytochrome A - po |
| 256 | 35 | 38.0 | 295 | 2 | S60711 | probable glpQl pro | 329 | 35 | 38.0 | 1271 | 2 | T24008 | hypothetical prote |
| 257 | 35 | 38.0 | 304 | 2 | B82089 | band-6-protein - b | 330 | 35 | 38.0 | 1291 | 2 | T13389 | hypothetical prote |
| 258 | 35 | 38.0 | 307 | 2 | S16390 | transcription regu | 331 | 35 | 38.0 | 1338 | 2 | T02206 | hypothetical prote |
| 259 | 35 | 38.0 | 320 | 2 | S69547 | auxin-induced regu | 332 | 35 | 38.0 | 1534 | 2 | T30295 | P-glycoprotein - T |
| 260 | 35 | 38.0 | 351 | 2 | A10991 | transcription init | 333 | 35 | 38.0 | 1849 | 2 | T00415 | hypothetical prote |
| 261 | 35 | 38.0 | 363 | 2 | S33702 | cell division prot | 334 | 35 | 38.0 | 1876 | 2 | C70749 | probable ppsA prot |
| 262 | 35 | 38.0 | 366 | 2 | AH2782 | homeotic protein D | 335 | 35 | 38.0 | 2276 | 2 | T00076 | hypothetical prote |
| 263 | 35 | 38.0 | 372 | 2 | AG35050 | S-adenosylmethionl | 336 | 34.5 | 37.5 | 148 | 2 | S06019 | hypothetical prote |
| 264 | 35 | 38.0 | 372 | 2 | S67770 | brefeldin A estera | 337 | 34.5 | 37.5 | 150 | 2 | C83329 | isotocin 2 / neuro |
| 265 | 35 | 38.0 | 382 | 2 | AG3533 | probable membrane | 338 | 34.5 | 37.5 | 154 | 2 | A33896 | hypothetical prote |
| 266 | 35 | 38.0 | 383 | 2 | A49562 | spermidine/putresc | 339 | 34.5 | 37.5 | 158 | 2 | B34132 | isotocin 1 / neuro |
| 267 | 35 | 38.0 | 396 | 1 | AMZRB | cartilage glycopro | 340 | 34.5 | 37.5 | 460 | 2 | C96736 | vasotocin / neurop |
| 268 | 35 | 38.0 | 396 | 2 | A97562 | argininosuccinate | 341 | 34.5 | 37.5 | 500 | 2 | T00820 | probable ketoacyl - |
| 269 | 35 | 38.0 | 397 | 2 | C81851 | S-adenosylmethionl | 342 | 34.5 | 37.5 | 573 | 2 | JQ0135 | hypothetical prote |
| 270 | 35 | 38.0 | 398 | 2 | H81090 | acetylornithine tr | 343 | 34.5 | 37.5 | 586 | 2 | S58713 | hypothetical 62.8K |
| 271 | 35 | 38.0 | 399 | 2 | B83398 | acetylornithine am | 344 | 34.5 | 37.5 | 670 | 2 | T43784 | probable membrane |
| 272 | 35 | 38.0 | 402 | 2 | A41594 | hypothetical prote | 345 | 34.5 | 37.5 | 690 | 2 | T27357 | NADH2 dehydrogenas |
| 273 | 35 | 38.0 | 410 | 2 | AB3546 | Na+/H+-exchangin | 346 | 34.5 | 37.5 | 764 | 2 | T48446 | hypothetical prote |
| 274 | 35 | 38.0 | 426 | 2 | E95854 | aminobutyraldehyde | 347 | 34.5 | 37.5 | 851 | 2 | AB3484 | hypothetical prote |
| 275 | 35 | 38.0 | 430 | 2 | T20551 | conserved hypothet | 348 | 34.5 | 37.5 | 1067 | 2 | AB0260 | probable heme util |
| 276 | 35 | 38.0 | 445 | 2 | T49318 | hypothetical prote | 349 | 34.5 | 37.5 | 1104 | 2 | JH0181 | probable phage hos |
| 277 | 35 | 38.0 | 449 | 2 | T19554 | probable SGP1 prot | 350 | 34.5 | 37.5 | 1168 | 2 | I56985 | nitrite reductase |
| 278 | 35 | 38.0 | 454 | 2 | AC0444 | hypothetical prote | 351 | 34 | 37.0 | 87 | 2 | T28219 | kalinin B1 - mouse |
| 279 | 35 | 38.0 | 454 | 2 | S61455 | probable metabolit | 352 | 34 | 37.0 | 94 | 2 | CS9094 | hypothetical prote |
| 280 | 35 | 38.0 | 467 | 2 | B75322 | flagellar hook pro | 353 | 34 | 37.0 | 111 | 2 | A33600 | hypothetical prote |
| 281 | 35 | 38.0 | 470 | 2 | T48003 | probable oligoendo | 354 | 34 | 37.0 | 112 | 2 | S74466 | nitrogen regulator |
| 282 | 35 | 38.0 | 489 | 2 | H69059 | hypothetical prote | 355 | 34 | 37.0 | 113 | 2 | T44042 | photosystem II 13K |
| 283 | 35 | 38.0 | 536 | 2 | B91174 | dihydroxy-acid deh | 356 | 34 | 37.0 | 118 | 2 | T49372 | chemokine [improt |
| 284 | 35 | 38.0 | 543 | 2 | T32496 | hypothetical prote | 357 | 34 | 37.0 | 128 | 2 | AE3451 | hypothetical prote |
| 285 | 35 | 38.0 | 553 | 2 | E90601 | hypothetical prote | 358 | 34 | 37.0 | 136 | 2 | T46345 | hypothetical prote |
| 286 | 35 | 38.0 | 555 | 2 | F70372 | hypothetical prote | 359 | 34 | 37.0 | 143 | 2 | T49137 | hypothetical prote |
| 287 | 35 | 38.0 | 556 | 1 | S24395 | dihydroxyacid dehy | 360 | 34 | 37.0 | 152 | 1 | G25973 | hypothetical prote |
| 288 | 35 | 38.0 | 557 | 2 | B86020 | protein-tyrosine-p | 361 | 34 | 37.0 | 171 | 2 | E84773 | pertussis toxin ch |
| 289 | 35 | 38.0 | 587 | 2 | A36347 | hypothetical prote | 362 | 34 | 37.0 | 208 | 2 | F75355 | hypothetical prote |
| 290 | 35 | 38.0 | 569 | 2 | S41200 | glypican 1 precura | 363 | 34 | 37.0 | 209 | 2 | T39652 | 3-isopropylmalate |
| 291 | 35 | 38.0 | 573 | 2 | C84645 | phosphoglucutase | 364 | 34 | 37.0 | 221 | 2 | C84899 | probable DNA J dom |
| 292 | 35 | 38.0 | 627 | 2 | T19542 | hypothetical prote | 365 | 34 | 37.0 | 227 | 2 | E97526 | hypothetical prote |
| 293 | 35 | 38.0 | 630 | 2 | F86317 | hypothetical prote | 366 | 34 | 37.0 | 239 | 2 | G72400 | 30S ribosomal prot |
| 294 | 35 | 38.0 | 642 | 2 | T51421 | protein F15H18.17 | 367 | 34 | 37.0 | 245 | 2 | F69343 | 16S pseudouridylat |
| 295 | 35 | 38.0 | 648 | 2 | S50856 | L-aspartate oksidas | 368 | 34 | 37.0 | 252 | 2 | T45737 | 2-oxoacid-ferredox |
| 296 | 35 | 38.0 | 654 | 2 | T34613 | whn protein - rat | 369 | 34 | 37.0 | 255 | 2 | AE2745 | hypothetical prote |
| 297 | 35 | 38.0 | 657 | 2 | G97658 | NADH2 dehydrogenas | 370 | 34 | 37.0 | 255 | 2 | E82363 | 30S ribosomal prot |
| 298 | 35 | 38.0 | 699 | 2 | F97721 | hypothetical prote | 371 | 34 | 37.0 | 265 | 1 | CTBOP | conserved hypothet |
| 299 | 35 | 38.0 | 699 | 2 | B71723 | elongation factor | 372 | 34 | 37.0 | 268 | 2 | S39711 | corticotropin / li |
| 300 | 35 | 38.0 | 700 | 2 | T20550 | translation elonga | 373 | 34 | 37.0 | 268 | 2 | B61615 | YwDF protein - Bac |
| 301 | 35 | 38.0 | 701 | 2 | S31150 | hypothetical prote | 374 | 34 | 37.0 | 279 | 2 | T34860 | fibroin heavy chai |
| 302 | 35 | 38.0 | 701 | 2 | H87143 | translation elonga | 375 | 34 | 37.0 | 292 | 2 | E72208 | probable oxidoredu |
| 303 | 35 | 38.0 | 701 | 2 | E70827 | elongation factor | 376 | 34 | 37.0 | 296 | 2 | D70314 | conserved hypothet |
| 304 | 35 | 38.0 | 730 | 2 | S24376 | probable fusa1 prot | 377 | 34 | 37.0 | 315 | 2 | H81907 | heme O oxygenase - |
| 305 | 35 | 38.0 | 737 | 2 | T46101 | 2-aminobenzoyl-CoA | 378 | 34 | 37.0 | 315 | 2 | F81107 | probable periplasm |
| 306 | 35 | 38.0 | 747 | 2 | S46608 | ABC transporter-li | 379 | 34 | 37.0 | 317 | 2 | D89961 | stomatol/Mec-2 fam |
| 307 | 35 | 38.0 | 755 | 2 | A13228 | YTA11 protein - ye | 380 | 34 | 37.0 | 319 | 2 | B82951 | conserved hypothet |
| 308 | 35 | 38.0 | 804 | 2 | T05783 | tryptophan 2-monoo | 381 | 34 | 37.0 | 320 | 2 | B87135 | conserved hypothet |
| 309 | 35 | 38.0 | 815 | 2 | JG0197 | hypothetical prote | 382 | 34 | 37.0 | 322 | 1 | F64360 | conserved hypothet |
| 310 | 35 | 38.0 | 832 | 2 | B96702 | myosin-light-chain | 383 | 34 | 37.0 | 324 | 2 | T15744 | hypothetical prote |
| 311 | 35 | 38.0 | 857 | 2 | B82290 | hypothetical prote | 384 | 34 | 37.0 | 327 | 2 | A48804 | afatoxin B1 aldeh |
| 312 | 35 | 38.0 | 865 | 1 | ISRCTP | clpB protein VC071 | 385 | 34 | 37.0 | 329 | 2 | T32578 | hypothetical prote |
| 313 | 35 | 38.0 | 865 | 2 | AF0654 | DNA topoisomerase | 386 | 34 | 37.0 | 341 | 2 | T20517 | hypothetical prote |
| 314 | 35 | 38.0 | 865 | 2 | F90859 | DNA topoisomerase | 387 | 34 | 37.0 | 342 | 2 | T02669 | hypothetical prote |
| 315 | 35 | 38.0 | 865 | 2 | A85760 | DNA topoisomerase | 388 | 34 | 37.0 | 352 | 2 | E81255 | hlsB bifunctional |
| 316 | 35 | 38.0 | 888 | 2 | T51593 | GTP-binding regula | 389 | 34 | 37.0 | 355 | 2 | AE0426 | two-component syst |
| 317 | 35 | 38.0 | 901 | 2 | T01135 | probable GTP-bindi | 390 | 34 | 37.0 | 357 | 2 | T29856 | probable aspartate |
| 318 | 35 | 38.0 | 910 | 2 | T22050 | hypothetical prote | 391 | 34 | 37.0 | 362 | 2 | A72061 | ct474 hypothetical |
| 319 | 35 | 38.0 | 924 | 2 | T22044 | hypothetical prote | 392 | 34 | 37.0 | 362 | 2 | D81606 | conserved hypothet |
| 320 | 35 | 38.0 | 1001 | 2 | S30385 | G9a protein - huma | 393 | 34 | 37.0 | 364 | 2 | F86564 | CT474 hypothetical |
| 321 | 35 | 38.0 | 1018 | 2 | AG2556 | hypothetical prote | 394 | 34 | 37.0 | 364 | 2 | D75539 | branched-chain ami |

| | | | | | | | | | | | | |
|-----|----|------|-----|---|---------|-----|------|------|------|---|--------|---------------------|
| 395 | 34 | 37.0 | 367 | 2 | J66087 | 468 | 34 | 37.0 | 830 | 2 | T19283 | hypothetical prote |
| 396 | 34 | 37.0 | 372 | 2 | JC2556 | 469 | 34 | 37.0 | 837 | 2 | A57542 | p96 protein - mous |
| 397 | 34 | 37.0 | 372 | 2 | AB2016 | 470 | 34 | 37.0 | 880 | 2 | T18771 | probable chloride |
| 398 | 34 | 37.0 | 374 | 2 | S69627 | 471 | 34 | 37.0 | 888 | 2 | D84824 | probable DNA-direc |
| 399 | 34 | 37.0 | 375 | 2 | D97268 | 472 | 34 | 37.0 | 892 | 2 | T09071 | SH3 domains-contai |
| 400 | 34 | 37.0 | 393 | 2 | S67050 | 473 | 34 | 37.0 | 903 | 2 | T00074 | hypothetical prote |
| 401 | 34 | 37.0 | 397 | 1 | Z68PT9 | 474 | 34 | 37.0 | 907 | 2 | F84825 | hypothetical prote |
| 402 | 34 | 37.0 | 397 | 2 | D66987 | 475 | 34 | 37.0 | 1022 | 1 | I39643 | RFX-toxin I - Acti |
| 403 | 34 | 37.0 | 403 | 2 | A82423 | 476 | 34 | 37.0 | 1027 | 2 | C86300 | protein F309.28 li |
| 404 | 34 | 37.0 | 415 | 2 | F91209 | 477 | 34 | 37.0 | 1035 | 2 | T16588 | hypothetical prote |
| 405 | 34 | 37.0 | 415 | 2 | A86056 | 478 | 34 | 37.0 | 1057 | 2 | T16676 | hypothetical prote |
| 406 | 34 | 37.0 | 415 | 2 | A39412 | 479 | 34 | 37.0 | 1060 | 2 | T30347 | vitellogenin conve |
| 407 | 34 | 37.0 | 415 | 2 | S22136 | 480 | 34 | 37.0 | 1157 | 2 | F97255 | fusion of alpha-gl |
| 408 | 34 | 37.0 | 425 | 2 | JC6557 | 481 | 34 | 37.0 | 1217 | 2 | F97177 | alpha-glucosidase |
| 409 | 34 | 37.0 | 437 | 1 | A40861 | 482 | 34 | 37.0 | 1229 | 2 | S14199 | probable adenylate |
| 410 | 34 | 37.0 | 437 | 1 | S50853 | 483 | 34 | 37.0 | 1298 | 2 | I54367 | X-linked nuclear p |
| 411 | 34 | 37.0 | 437 | 2 | A64891 | 484 | 34 | 37.0 | 1328 | 1 | S04273 | retrovirus-related |
| 412 | 34 | 37.0 | 438 | 2 | D84331 | 485 | 34 | 37.0 | 1458 | 2 | A45665 | adult-specific bru |
| 413 | 34 | 37.0 | 445 | 2 | T37161 | 486 | 34 | 37.0 | 1547 | 2 | A12043 | hypothetical prote |
| 414 | 34 | 37.0 | 456 | 2 | C86624 | 487 | 34 | 37.0 | 1641 | 2 | T38614 | helicase II - huma |
| 415 | 34 | 37.0 | 456 | 2 | H72000 | 488 | 34 | 37.0 | 1722 | 2 | I78879 | reinoblastoma bin |
| 416 | 34 | 37.0 | 457 | 2 | E82714 | 489 | 34 | 37.0 | 1729 | 2 | A49282 | fusion protein Ia/ |
| 417 | 34 | 37.0 | 459 | 2 | F81914 | 490 | 34 | 37.0 | 1888 | 2 | T39009 | hypothetical prote |
| 418 | 34 | 37.0 | 459 | 2 | G81187 | 491 | 34 | 37.0 | 2109 | 1 | I50421 | aggreacan precursor |
| 419 | 34 | 37.0 | 459 | 2 | G70672 | 492 | 34 | 37.0 | 3759 | 2 | A35085 | trithorax protein |
| 420 | 34 | 37.0 | 465 | 2 | E87591 | 493 | 34 | 37.0 | 3828 | 2 | T13857 | trithorax protein |
| 421 | 34 | 37.0 | 466 | 2 | AC2696 | 494 | 33.5 | 36.4 | 78 | 2 | C90872 | hypothetical prote |
| 422 | 34 | 37.0 | 466 | 2 | C97478 | 495 | 33.5 | 36.4 | 153 | 2 | A34132 | vasotocin / neurop |
| 423 | 34 | 37.0 | 480 | 2 | T313809 | 496 | 33.5 | 36.4 | 159 | 2 | JC1489 | isotocin-I precurs |
| 424 | 34 | 37.0 | 483 | 2 | A25896 | 497 | 33.5 | 36.4 | 159 | 2 | I51077 | isotocin-I precurs |
| 425 | 34 | 37.0 | 495 | 2 | F89818 | 498 | 33.5 | 36.4 | 491 | 2 | T08996 | ribulose-1,5-bisph |
| 426 | 34 | 37.0 | 500 | 2 | F88921 | 499 | 33.5 | 36.4 | 491 | 2 | T08995 | ribulose-1,5-bisph |
| 427 | 34 | 37.0 | 501 | 2 | G83848 | 500 | 33.5 | 36.4 | 631 | 2 | AD2224 | hypothetical prote |
| 428 | 34 | 37.0 | 503 | 2 | B83772 | 501 | 33.5 | 36.4 | 642 | 2 | B49849 | terminase large ch |
| 429 | 34 | 37.0 | 509 | 2 | S49349 | 502 | 33.5 | 36.4 | 1091 | 2 | T34247 | hypothetical prote |
| 430 | 34 | 37.0 | 533 | 2 | AG2328 | 503 | 33.5 | 36.4 | 1107 | 2 | J34246 | hypothetical prote |
| 431 | 34 | 37.0 | 534 | 2 | H69056 | 504 | 33 | 35.9 | 45 | 2 | J50655 | hypothetical 5K pr |
| 432 | 34 | 37.0 | 546 | 2 | I48899 | 505 | 33 | 35.9 | 52 | 2 | D82517 | hypothetical prote |
| 433 | 34 | 37.0 | 550 | 2 | A48063 | 506 | 33 | 35.9 | 75 | 2 | G89976 | conserved hypothet |
| 434 | 34 | 37.0 | 553 | 2 | I45067 | 507 | 33 | 35.9 | 80 | 2 | E83102 | conserved hypothet |
| 435 | 34 | 37.0 | 559 | 2 | T23571 | 508 | 33 | 35.9 | 115 | 2 | T07576 | hypothetical prote |
| 436 | 34 | 37.0 | 570 | 2 | S41199 | 509 | 33 | 35.9 | 117 | 2 | G70127 | hypothetical prote |
| 437 | 34 | 37.0 | 586 | 2 | T21683 | 510 | 33 | 35.9 | 123 | 2 | S47709 | hypothetical 14.2K |
| 438 | 34 | 37.0 | 588 | 1 | VXAGCA | 511 | 33 | 35.9 | 125 | 1 | R3EG12 | ribosomal protein |
| 439 | 34 | 37.0 | 591 | 2 | B83457 | 512 | 33 | 35.9 | 131 | 1 | W6ER41 | percutiss toxin ch |
| 440 | 34 | 37.0 | 594 | 1 | A56684 | 513 | 33 | 35.9 | 131 | 1 | H64788 | ybcy protein - Esc |
| 441 | 34 | 37.0 | 594 | 2 | T34855 | 514 | 33 | 35.9 | 143 | 2 | H90835 | hypothetical prote |
| 442 | 34 | 37.0 | 598 | 2 | E97686 | 515 | 33 | 35.9 | 143 | 2 | T20956 | hypothetical prote |
| 443 | 34 | 37.0 | 598 | 2 | AG2911 | 516 | 33 | 35.9 | 145 | 2 | T04083 | probable ribosomal |
| 444 | 34 | 37.0 | 608 | 1 | NCECXF | 517 | 33 | 35.9 | 149 | 2 | H25973 | percutiss toxin ch |
| 445 | 34 | 37.0 | 608 | 2 | F85933 | 518 | 33 | 35.9 | 152 | 1 | H83936 | hypothetical prote |
| 446 | 34 | 37.0 | 608 | 2 | D91088 | 519 | 33 | 35.9 | 163 | 2 | E87556 | hypothetical prote |
| 447 | 34 | 37.0 | 611 | 2 | AI0864 | 520 | 33 | 35.9 | 164 | 2 | E90471 | hypothetical prote |
| 448 | 34 | 37.0 | 612 | 2 | T18848 | 521 | 33 | 35.9 | 166 | 2 | C84773 | hypothetical prote |
| 449 | 34 | 37.0 | 626 | 1 | A48648 | 522 | 33 | 35.9 | 167 | 2 | D90959 | probable tail tube |
| 450 | 34 | 37.0 | 643 | 2 | T43052 | 523 | 33 | 35.9 | 170 | 2 | F85807 | probable tail tube |
| 451 | 34 | 37.0 | 652 | 2 | AE0125 | 524 | 33 | 35.9 | 173 | 1 | QQMX2 | probable transcrip |
| 452 | 34 | 37.0 | 658 | 2 | H95952 | 525 | 33 | 35.9 | 173 | 1 | F88535 | protein B0523.3 li |
| 453 | 34 | 37.0 | 664 | 1 | B32243 | 526 | 33 | 35.9 | 176 | 2 | B75430 | transcription regu |
| 454 | 34 | 37.0 | 665 | 2 | T00015 | 527 | 33 | 35.9 | 181 | 2 | C84787 | hypothetical prote |
| 455 | 34 | 37.0 | 680 | 2 | S63895 | 528 | 33 | 35.9 | 188 | 2 | S38906 | hypothetical prote |
| 456 | 34 | 37.0 | 680 | 2 | E85431 | 529 | 33 | 35.9 | 190 | 2 | T31661 | hypothetical prote |
| 457 | 34 | 37.0 | 703 | 2 | D71420 | 530 | 33 | 35.9 | 197 | 2 | S44735 | hypothetical prote |
| 458 | 34 | 37.0 | 704 | 2 | B83914 | 531 | 33 | 35.9 | 206 | 2 | AH0259 | b0523.3 protein - |
| 459 | 34 | 37.0 | 717 | 2 | H85171 | 532 | 33 | 35.9 | 211 | 2 | F97113 | probable phage tai |
| 460 | 34 | 37.0 | 719 | 2 | T09543 | 533 | 33 | 35.9 | 213 | 2 | T18684 | hypothetical prote |
| 461 | 34 | 37.0 | 722 | 2 | F87662 | 534 | 33 | 35.9 | 213 | 2 | D89351 | hypothetical prote |
| 462 | 34 | 37.0 | 727 | 2 | AD2188 | 535 | 33 | 35.9 | 220 | 2 | T03967 | protein F14H3.6 li |
| 463 | 34 | 37.0 | 739 | 2 | T52289 | 536 | 33 | 35.9 | 221 | 2 | C69505 | RAB24 protein - ri |
| 464 | 34 | 37.0 | 748 | 2 | A64319 | 537 | 33 | 35.9 | 222 | 2 | B85694 | Cdpdiacylglycerol - |
| 465 | 34 | 37.0 | 772 | 2 | T16474 | 538 | 33 | 35.9 | 222 | 2 | B85694 | unknown protein en |
| 466 | 34 | 37.0 | 774 | 2 | F96639 | 539 | 33 | 35.9 | 242 | 2 | B96571 | hypothetical prote |
| 467 | 34 | 37.0 | 809 | 2 | T20430 | 540 | 33 | 35.9 | 244 | 2 | T02511 | DREB-like AP2 doma |

| | | | | | | | | | | | | | |
|-----|----|------|-----|---|--------|--------------------|-----|----|------|-----|---|--------|--------------------|
| 541 | 33 | 35.9 | 245 | 2 | T20931 | hypothetical prote | 614 | 33 | 35.9 | 446 | 2 | AD0509 | citrate-sodium sym |
| 542 | 33 | 35.9 | 246 | 2 | S51970 | hypothetical prote | 615 | 33 | 35.9 | 446 | 2 | B42661 | citrate carrier pr |
| 543 | 33 | 35.9 | 247 | 2 | A70910 | probable truncated | 616 | 33 | 35.9 | 446 | 2 | G86673 | NADH oxidase noxe |
| 544 | 33 | 35.9 | 250 | 2 | H96669 | protein FIN19.25 l | 617 | 33 | 35.9 | 447 | 2 | S76321 | histidine-tRNA lig |
| 545 | 33 | 35.9 | 253 | 2 | S65170 | hypothetical prote | 618 | 33 | 35.9 | 452 | 2 | B90640 | D-alanine D-alanin |
| 546 | 33 | 35.9 | 254 | 2 | B72549 | hypothetical prote | 619 | 33 | 35.9 | 452 | 2 | P64730 | UDP-N-acetylmuramo |
| 547 | 33 | 35.9 | 258 | 2 | A33953 | enterotoxin D prec | 620 | 33 | 35.9 | 452 | 2 | B85491 | D-alanine-D-alanin |
| 548 | 33 | 35.9 | 258 | 2 | H83373 | hypothetical prote | 621 | 33 | 35.9 | 452 | 2 | H88337 | protein F15A4.1 [i |
| 549 | 33 | 35.9 | 260 | 2 | F81384 | fumarate reductase | 622 | 33 | 35.9 | 453 | 2 | AD1371 | aspartate kinase h |
| 550 | 33 | 35.9 | 262 | 2 | S65224 | probable transcrip | 623 | 33 | 35.9 | 453 | 2 | AD1371 | aspartate kinase h |
| 551 | 33 | 35.9 | 267 | 2 | H97155 | probable rRNA meth | 624 | 33 | 35.9 | 455 | 2 | T23712 | hypothetical prote |
| 552 | 33 | 35.9 | 270 | 2 | AD1409 | hydrolase (esteras | 625 | 33 | 35.9 | 460 | 2 | T45968 | hypothetical prote |
| 553 | 33 | 35.9 | 270 | 2 | T24529 | hypothetical prote | 626 | 33 | 35.9 | 462 | 2 | A86717 | conserved hypother |
| 554 | 33 | 35.9 | 275 | 2 | H69843 | hypothetical prote | 627 | 33 | 35.9 | 467 | 2 | I50476 | keratin type I - g |
| 555 | 33 | 35.9 | 281 | 2 | E71046 | probable ferredoxi | 628 | 33 | 35.9 | 470 | 2 | G70870 | hypothetical prote |
| 556 | 33 | 35.9 | 281 | 2 | G75168 | 2-ketoglutarate fe | 629 | 33 | 35.9 | 470 | 2 | B72567 | hypothetical prote |
| 557 | 33 | 35.9 | 281 | 2 | D82154 | hypothetical prote | 630 | 33 | 35.9 | 473 | 2 | B84143 | Na+/H+ antiporter |
| 558 | 33 | 35.9 | 291 | 2 | E81890 | hypothetical prote | 631 | 33 | 35.9 | 474 | 2 | E85175 | ATP-dependent RNA |
| 559 | 33 | 35.9 | 291 | 2 | H81132 | hypothetical prote | 632 | 33 | 35.9 | 478 | 2 | A72721 | probable Glycerol |
| 560 | 33 | 35.9 | 298 | 1 | D69023 | cell division inhi | 633 | 33 | 35.9 | 479 | 2 | AF3019 | pyruvate kinase [i |
| 561 | 33 | 35.9 | 299 | 2 | AC2998 | glutamyl-tRNA synt | 634 | 33 | 35.9 | 479 | 2 | C98265 | pyruvate kinase (P |
| 562 | 33 | 35.9 | 299 | 2 | F98285 | glutamyl-tRNA synt | 635 | 33 | 35.9 | 483 | 2 | T51272 | hypothetical prote |
| 563 | 33 | 35.9 | 306 | 2 | B96922 | transcription regu | 636 | 33 | 35.9 | 484 | 2 | S62938 | hypothetical prote |
| 564 | 33 | 35.9 | 308 | 2 | AC1053 | probable membrane | 637 | 33 | 35.9 | 488 | 2 | D35385 | hydrogen dehydroge |
| 565 | 33 | 35.9 | 316 | 1 | NJ3YMI | toxin M1-1 precurs | 638 | 33 | 35.9 | 505 | 2 | AD0511 | probable carnitine |
| 566 | 33 | 35.9 | 319 | 2 | E86861 | methionyl-tRNA for | 639 | 33 | 35.9 | 508 | 2 | S74977 | hypothetical prote |
| 567 | 33 | 35.9 | 320 | 2 | F69747 | two-component sens | 640 | 33 | 35.9 | 509 | 2 | JH0501 | zinc finger protei |
| 568 | 33 | 35.9 | 321 | 2 | T32320 | hypothetical prote | 641 | 33 | 35.9 | 510 | 2 | A96735 | hypothetical prote |
| 569 | 33 | 35.9 | 322 | 1 | D69999 | conserved hypother | 642 | 33 | 35.9 | 512 | 1 | O4HU6 | aryl hydrocarbon (|
| 570 | 33 | 35.9 | 325 | 2 | A28214 | phosphotriestrase | 643 | 33 | 35.9 | 512 | 2 | F85342 | beta-1,3-glucanas |
| 571 | 33 | 35.9 | 327 | 2 | AI2901 | glycerol-3-phospho | 644 | 33 | 35.9 | 513 | 1 | R8CAY | transcription regu |
| 572 | 33 | 35.9 | 327 | 2 | C97677 | probable glycerol- | 645 | 33 | 35.9 | 513 | 2 | F90866 | transcription regu |
| 573 | 33 | 35.9 | 329 | 2 | A69776 | hypothetical prote | 646 | 33 | 35.9 | 513 | 2 | C85752 | hypothetical prote |
| 574 | 33 | 35.9 | 334 | 2 | T36485 | probable arAC-famI | 647 | 33 | 35.9 | 513 | 2 | T37806 | probable flavoprot |
| 575 | 33 | 35.9 | 339 | 2 | C84653 | hypothetical prote | 648 | 33 | 35.9 | 517 | 2 | AC2237 | uroporphyrinogen I |
| 576 | 33 | 35.9 | 340 | 2 | H64717 | sialoglycoproteina | 649 | 33 | 35.9 | 518 | 2 | A27821 | cytochrome P450 1A |
| 577 | 33 | 35.9 | 340 | 2 | E71801 | probable O-sialogl | 650 | 33 | 35.9 | 521 | 2 | S55318 | cytochrome P450 1A |
| 578 | 33 | 35.9 | 341 | 2 | S72649 | sucrose-phosphate | 651 | 33 | 35.9 | 521 | 2 | S55317 | cytochrome P450 1A |
| 579 | 33 | 35.9 | 351 | 2 | H84847 | probable protein k | 652 | 33 | 35.9 | 521 | 2 | S34184 | cytochrome P450 1A |
| 580 | 33 | 35.9 | 357 | 1 | G69290 | probable hexosyltr | 653 | 33 | 35.9 | 524 | 1 | O4RTMC | unspecific monooxy |
| 581 | 33 | 35.9 | 363 | 2 | T24809 | hypothetical prote | 654 | 33 | 35.9 | 524 | 2 | T31311 | lysine-tRNA ligase |
| 582 | 33 | 35.9 | 367 | 2 | T17481 | prephenate dehydro | 655 | 33 | 35.9 | 527 | 2 | S64702 | cell surface antig |
| 583 | 33 | 35.9 | 370 | 2 | S54297 | protein phosphatas | 656 | 33 | 35.9 | 530 | 2 | S53392 | probable membrane |
| 584 | 33 | 35.9 | 373 | 2 | A96927 | probable N6-adenin | 657 | 33 | 35.9 | 535 | 2 | A87570 | ABC transporter, A |
| 585 | 33 | 35.9 | 375 | 2 | H98185 | membrane dipeptida | 658 | 33 | 35.9 | 536 | 2 | A34596 | transcription fact |
| 586 | 33 | 35.9 | 375 | 2 | AB3101 | dipeptidase [impor | 659 | 33 | 35.9 | 537 | 1 | YRHUB6 | tyrosinase-related |
| 587 | 33 | 35.9 | 376 | 2 | AC0440 | probable oxidoredu | 660 | 33 | 35.9 | 541 | 2 | T34850 | probable acid-CoA |
| 588 | 33 | 35.9 | 378 | 2 | A97552 | Chain A, crystal s | 661 | 33 | 35.9 | 544 | 2 | E75569 | probable aminotran |
| 589 | 33 | 35.9 | 394 | 2 | G86190 | hypothetical prote | 662 | 33 | 35.9 | 558 | 2 | T21468 | hypothetical prote |
| 590 | 33 | 35.9 | 394 | 2 | S42751 | asparillopepsin I | 663 | 33 | 35.9 | 560 | 2 | T32288 | hypothetical prote |
| 591 | 33 | 35.9 | 394 | 2 | T40897 | hypothetical prote | 664 | 33 | 35.9 | 561 | 2 | C64459 | dihydroxy-acid deh |
| 592 | 33 | 35.9 | 397 | 2 | D69538 | arsenite transport | 665 | 33 | 35.9 | 572 | 2 | T51575 | 2-hydroxyphytanoyl |
| 593 | 33 | 35.9 | 398 | 2 | S44038 | actin-related prot | 666 | 33 | 35.9 | 575 | 2 | C34106 | protein kinase (EC |
| 594 | 33 | 35.9 | 403 | 2 | G82831 | queine tRNA-fibos | 667 | 33 | 35.9 | 581 | 2 | B81107 | exodeoxyribonuclea |
| 595 | 33 | 35.9 | 405 | 2 | T43023 | ceoA protein - Bur | 668 | 33 | 35.9 | 581 | 2 | B81909 | exodeoxyribonuclea |
| 596 | 33 | 35.9 | 409 | 2 | A84602 | hypothetical prote | 669 | 33 | 35.9 | 589 | 2 | S42385 | hypothetical prote |
| 597 | 33 | 35.9 | 411 | 2 | H90048 | hypothetical prote | 670 | 33 | 35.9 | 590 | 2 | F75501 | sensor histidine k |
| 598 | 33 | 35.9 | 411 | 2 | H64239 | UV protection prot | 671 | 33 | 35.9 | 599 | 2 | T48383 | uracil transporter |
| 599 | 33 | 35.9 | 413 | 2 | E81984 | pilin glycosylatio | 672 | 33 | 35.9 | 609 | 2 | E82423 | hypothetical prote |
| 600 | 33 | 35.9 | 413 | 2 | E81039 | pilin glycosylatio | 673 | 33 | 35.9 | 614 | 2 | D34106 | protein kinase (EC |
| 601 | 33 | 35.9 | 414 | 1 | I38977 | TAR DNA-binding pr | 674 | 33 | 35.9 | 625 | 2 | G97076 | alkaline phosphata |
| 602 | 33 | 35.9 | 418 | 2 | S29506 | neurotensin recept | 675 | 33 | 35.9 | 634 | 2 | JC7808 | delta-glutamate re |
| 603 | 33 | 35.9 | 421 | 2 | A71345 | probable phosphori | 676 | 33 | 35.9 | 641 | 2 | T03095 | homoprotein Sail |
| 604 | 33 | 35.9 | 425 | 2 | AD2655 | 3-phosphoshikimate | 677 | 33 | 35.9 | 645 | 2 | F70825 | probable PPE prote |
| 605 | 33 | 35.9 | 425 | 2 | H97436 | 3-phosphoshikimate | 678 | 33 | 35.9 | 652 | 2 | B84686 | hypothetical prote |
| 606 | 33 | 35.9 | 425 | 2 | AD3039 | replication protei | 679 | 33 | 35.9 | 653 | 2 | T12482 | hypothetical prote |
| 607 | 33 | 35.9 | 428 | 2 | H98246 | probable replicati | 680 | 33 | 35.9 | 662 | 2 | D40228 | neurexin II-beta p |
| 608 | 33 | 35.9 | 429 | 2 | T05011 | hypothetical prote | 681 | 33 | 35.9 | 667 | 2 | F87291 | methyl-accepting c |
| 609 | 33 | 35.9 | 430 | 2 | H97013 | probable membrane | 682 | 33 | 35.9 | 668 | 2 | B96740 | hypothetical prote |
| 610 | 33 | 35.9 | 431 | 2 | C87436 | major facilitator | 683 | 33 | 35.9 | 680 | 2 | S63698 | NADPH-ferrihemopro |
| 611 | 33 | 35.9 | 441 | 2 | C69834 | sensory transducti | 684 | 33 | 35.9 | 680 | 2 | A37890 | NADPH-ferrihemopro |
| 612 | 33 | 35.9 | 445 | 2 | F71265 | probable NADH oxid | 685 | 33 | 35.9 | 695 | 2 | G85135 | hypothetical prote |
| 613 | 33 | 35.9 | 446 | 2 | A42661 | citrate carrier pr | 686 | 33 | 35.9 | 695 | 2 | T46113 | hypothetical prote |

| | | | | | | | | | | | | | |
|-----|----|------|------|---|--------|--------------------|-----|------|------|------|---|--------|---------------------|
| 687 | 33 | 35.9 | 701 | 2 | C26956 | translation elonga | 760 | 33 | 35.9 | 2670 | 2 | A46719 | inositol 1,4,5-tri |
| 688 | 33 | 35.9 | 701 | 2 | T28151 | probable ABC-type | 761 | 33 | 35.9 | 2671 | 2 | A49873 | inositol 1,4,5-tri |
| 689 | 33 | 35.9 | 705 | 2 | S54521 | probable membrane | 762 | 33 | 35.9 | 3178 | 2 | S13595 | 6-deoxyerythronol |
| 690 | 33 | 35.9 | 713 | 2 | G84586 | hypothetical prote | 763 | 33 | 35.9 | 3712 | 2 | S18253 | laminin alpha-1 ch |
| 691 | 33 | 35.9 | 720 | 2 | G97229 | pullulanase [impor | 764 | 33 | 35.9 | 3947 | 2 | T52486 | ferrichrome sidero |
| 692 | 33 | 35.9 | 747 | 1 | A57107 | kinesin-related pr | 765 | 32.5 | 35.3 | 40 | 2 | S21748 | probable lipid tra |
| 693 | 33 | 35.9 | 747 | 2 | T42599 | minor capsid prote | 766 | 32.5 | 35.3 | 93 | 2 | A60357 | neurophysin 1 - go |
| 694 | 33 | 35.9 | 750 | 2 | T21534 | hypothetical prote | 767 | 32.5 | 35.3 | 264 | 2 | T36431 | probable ABC-type |
| 695 | 33 | 35.9 | 753 | 1 | WZBEE8 | gene 56 protein - | 768 | 32.5 | 35.3 | 323 | 2 | AB1659 | hypothetical prote |
| 696 | 33 | 35.9 | 763 | 2 | AG1460 | alpha-glucosidase | 769 | 32.5 | 35.3 | 342 | 2 | T45456 | probable membrane |
| 697 | 33 | 35.9 | 765 | 2 | A69440 | conserved hypothet | 770 | 32.5 | 35.3 | 376 | 2 | S40470 | mitogen-activated |
| 698 | 33 | 35.9 | 769 | 2 | D86335 | T2OH2.6 protein - | 771 | 32.5 | 35.3 | 379 | 2 | C75294 | zinc metallohydrol |
| 699 | 33 | 35.9 | 779 | 2 | A57177 | NIMA-like protein | 772 | 32.5 | 35.3 | 384 | 2 | G96689 | probable fructokin |
| 700 | 33 | 35.9 | 780 | 2 | T03156 | ribonucleoside-dip | 773 | 32.5 | 35.3 | 453 | 2 | JQ0766 | phenylalanine 4-no |
| 701 | 33 | 35.9 | 794 | 2 | I58376 | hypothetical prote | 774 | 32.5 | 35.3 | 455 | 2 | T00856 | pectate lyase (EC |
| 702 | 33 | 35.9 | 798 | 2 | A69979 | conjugation trans | 775 | 32.5 | 35.3 | 581 | 2 | S53105 | pectinesterase pre |
| 703 | 33 | 35.9 | 798 | 2 | AE1263 | exodeoxyribonuclea | 776 | 32.5 | 35.3 | 614 | 2 | T86719 | hypothetical prote |
| 704 | 33 | 35.9 | 798 | 2 | AG1625 | exodeoxyribonuclea | 777 | 32.5 | 35.3 | 633 | 2 | T02686 | probable Ser/Thr p |
| 705 | 33 | 35.9 | 802 | 2 | G96640 | hypothetical prote | 778 | 32.5 | 35.3 | 638 | 2 | AC1123 | B. subtilis Iold p |
| 706 | 33 | 35.9 | 804 | 2 | AG1038 | conserved hypothet | 779 | 32.5 | 35.3 | 638 | 2 | AE1483 | B. subtilis Iold p |
| 707 | 33 | 35.9 | 809 | 2 | T40460 | ribosomal protein | 780 | 32.5 | 35.3 | 718 | 2 | T29448 | hypothetical prote |
| 708 | 33 | 35.9 | 817 | 2 | A96640 | protein Tif9.2 [im | 781 | 32.5 | 35.3 | 724 | 2 | T27858 | probable peroxidase |
| 709 | 33 | 35.9 | 820 | 2 | G86246 | hypothetical prote | 782 | 32.5 | 35.3 | 808 | 2 | T23129 | hypothetical prote |
| 710 | 33 | 35.9 | 823 | 2 | G89007 | protein F59Bl.8 [i | 783 | 32.5 | 35.3 | 836 | 2 | B96716 | probable serine/th |
| 711 | 33 | 35.9 | 828 | 2 | S34695 | hypothetical prote | 784 | 32.5 | 35.3 | 915 | 1 | WMBEV3 | ribonucleoside-dip |
| 712 | 33 | 35.9 | 829 | 2 | B96640 | hypothetical prote | 785 | 32.5 | 35.3 | 1220 | 2 | AD0125 | exodeoxyribonuclea |
| 713 | 33 | 35.9 | 831 | 2 | D96639 | protein Tif9.12 [i | 786 | 32.5 | 35.3 | 1395 | 2 | T00068 | hypothetical prote |
| 714 | 33 | 35.9 | 848 | 2 | E85087 | hypothetical prote | 787 | 32 | 34.8 | 70 | 2 | G45186 | homeotic protein G |
| 715 | 33 | 35.9 | 887 | 1 | WZBEE5 | gene 53 protein - | 788 | 32 | 34.8 | 81 | 1 | T5BP2A | short toxin 2 prec |
| 716 | 33 | 35.9 | 892 | 2 | T50985 | related to transcr | 789 | 32 | 34.8 | 81 | 2 | B90344 | hypothetical prote |
| 717 | 33 | 35.9 | 901 | 2 | T04108 | receptor kinase ho | 790 | 32 | 34.8 | 101 | 2 | D82219 | PTS system, cellob |
| 718 | 33 | 35.9 | 901 | 2 | JC6093 | dead ringer nuclea | 791 | 32 | 34.8 | 101 | 2 | C84023 | hypothetical prote |
| 719 | 33 | 35.9 | 912 | 2 | T01769 | hypothetical prote | 792 | 32 | 34.8 | 105 | 2 | S23061 | hypothetical prote |
| 720 | 33 | 35.9 | 912 | 2 | S74860 | DNA mismatch repai | 793 | 32 | 34.8 | 117 | 2 | G85690 | minor capsid prote |
| 721 | 33 | 35.9 | 934 | 2 | T08418 | protein kinase (EC | 794 | 32 | 34.8 | 117 | 2 | E90833 | hypothetical prote |
| 722 | 33 | 35.9 | 944 | 2 | S26710 | spindle pole body | 795 | 32 | 34.8 | 122 | 2 | S74818 | glycine-rich prote |
| 723 | 33 | 35.9 | 949 | 2 | T03030 | hypothetical prote | 796 | 32 | 34.8 | 129 | 2 | T03861 | NADH ubiquinone ox |
| 724 | 33 | 35.9 | 953 | 2 | S54478 | probable membrane | 797 | 32 | 34.8 | 133 | 2 | JC2003 | probable DNA-bind |
| 725 | 33 | 35.9 | 965 | 2 | S62935 | hypothetical prote | 798 | 32 | 34.8 | 134 | 2 | AD0618 | conserved hypothet |
| 726 | 33 | 35.9 | 971 | 2 | T19431 | hypothetical prote | 799 | 32 | 34.8 | 134 | 2 | AH2645 | hypothetical prote |
| 727 | 33 | 35.9 | 979 | 2 | B86207 | hypothetical prote | 800 | 32 | 34.8 | 135 | 2 | G72523 | probable membrane |
| 728 | 33 | 35.9 | 993 | 2 | A96750 | hypothetical prote | 801 | 32 | 34.8 | 136 | 2 | AC0599 | hypothetical prote |
| 729 | 33 | 35.9 | 1002 | 2 | T02488 | hypothetical prote | 802 | 32 | 34.8 | 139 | 2 | T28849 | hypothetical prote |
| 730 | 33 | 35.9 | 1007 | 2 | T32285 | hypothetical prote | 803 | 32 | 34.8 | 140 | 2 | E64364 | ribosomal protein |
| 731 | 33 | 35.9 | 1091 | 2 | G64964 | hypothetical prote | 804 | 32 | 34.8 | 145 | 2 | S41193 | hypothetical prote |
| 732 | 33 | 35.9 | 1096 | 1 | S61917 | protein kinase C (| 805 | 32 | 34.8 | 145 | 2 | H97427 | homeotic protein H |
| 733 | 33 | 35.9 | 1108 | 2 | T31335 | hgIC protein - Ana | 806 | 32 | 34.8 | 153 | 1 | WJHU3C | homeotic protein H |
| 734 | 33 | 35.9 | 1109 | 2 | AC2475 | heterocyst glycoli | 807 | 32 | 34.8 | 153 | 1 | WJMSX6 | probable mucR fami |
| 735 | 33 | 35.9 | 1127 | 2 | S47445 | MDM1 protein - yea | 808 | 32 | 34.8 | 154 | 2 | F95311 | hypothetical prote |
| 736 | 33 | 35.9 | 1139 | 2 | T23018 | hypothetical prote | 809 | 32 | 34.8 | 154 | 2 | F72741 | hypothetical prote |
| 737 | 33 | 35.9 | 1156 | 2 | D84639 | probable retroelem | 810 | 32 | 34.8 | 155 | 2 | A85582 | probable endopepti |
| 738 | 33 | 35.9 | 1178 | 2 | AC3394 | DNA-directed DNA p | 811 | 32 | 34.8 | 155 | 2 | D90731 | hypothetical prote |
| 739 | 33 | 35.9 | 1203 | 2 | D86625 | subunit A of ATP-d | 812 | 32 | 34.8 | 159 | 2 | S20143 | hypothetical prote |
| 740 | 33 | 35.9 | 1215 | 2 | S50428 | probable Ca2+-tran | 813 | 32 | 34.8 | 159 | 2 | T09852 | hypothetical prote |
| 741 | 33 | 35.9 | 1254 | 2 | JC7185 | chromosome 1 Clorf | 814 | 32 | 34.8 | 159 | 2 | A85022 | probable actin pol |
| 742 | 33 | 35.9 | 1349 | 2 | T13031 | nucleoporin - frui | 815 | 32 | 34.8 | 164 | 2 | T24272 | hypothetical prote |
| 743 | 33 | 35.9 | 1354 | 2 | AG0538 | Rhs-family protein | 816 | 32 | 34.8 | 165 | 2 | S28020 | pepidylprolyl iso |
| 744 | 33 | 35.9 | 1363 | 1 | VG1HF1 | E2 glycoprotein pr | 817 | 32 | 34.8 | 166 | 2 | G87423 | ferredoxin, probab |
| 745 | 33 | 35.9 | 1363 | 2 | S44241 | surface protein - | 818 | 32 | 34.8 | 168 | 2 | S78110 | thi protein - Rhiz |
| 746 | 33 | 35.9 | 1365 | 2 | T13391 | nucleoporin 154 - | 819 | 32 | 34.8 | 174 | 2 | T29801 | hypothetical prote |
| 747 | 33 | 35.9 | 1374 | 2 | AE3259 | extracellular seri | 820 | 32 | 34.8 | 178 | 2 | C83705 | hypothetical prote |
| 748 | 33 | 35.9 | 1375 | 2 | T30813 | plasmalogen relate | 821 | 32 | 34.8 | 178 | 2 | C83408 | hypothetical prote |
| 749 | 33 | 35.9 | 1415 | 2 | A72369 | (R)-2-hydroxygluta | 822 | 32 | 34.8 | 181 | 2 | C97709 | cdp-diacylglycerol |
| 750 | 33 | 35.9 | 1423 | 1 | S27941 | serum albumin - se | 823 | 32 | 34.8 | 181 | 2 | A71713 | hypothetical prote |
| 751 | 33 | 35.9 | 1571 | 2 | AC1647 | Lactobacillus phag | 824 | 32 | 34.8 | 181 | 2 | T05301 | hypothetical prote |
| 752 | 33 | 35.9 | 1607 | 2 | T21982 | hypothetical prote | 825 | 32 | 34.8 | 181 | 2 | F83907 | hypothetical prote |
| 753 | 33 | 35.9 | 1715 | 2 | C40228 | neurexin II-alpha | 826 | 32 | 34.8 | 186 | 2 | E71335 | probable cytidylat |
| 754 | 33 | 35.9 | 1797 | 2 | A55677 | laminin beta-2 cha | 827 | 32 | 34.8 | 188 | 2 | C87341 | conserved hypothet |
| 755 | 33 | 35.9 | 1848 | 2 | A44140 | cellulose-binding | 828 | 32 | 34.8 | 194 | 2 | S57472 | murine muscle LIM |
| 756 | 33 | 35.9 | 1896 | 2 | B72175 | D15R protein - var | 829 | 32 | 34.8 | 197 | 2 | E70423 | hypothetical prote |
| 757 | 33 | 35.9 | 1897 | 2 | T28621 | hypothetical prote | 830 | 32 | 34.8 | 202 | 2 | S22499 | hypothetical prote |
| 758 | 33 | 35.9 | 1959 | 1 | AGRT | agrin - rat | 831 | 32 | 34.8 | 203 | 2 | T29844 | hypothetical prote |
| 759 | 33 | 35.9 | 2054 | 2 | T07584 | hypothetical prote | 832 | 32 | 34.8 | 203 | 2 | JQ0853 | hypothetical 22.9K |

| | | | | | | | | | | | | | |
|-----|----|------|-----|---|--------|---------------------|-----|----|------|-----|---|--------|---------------------|
| 833 | 32 | 34.8 | 206 | 2 | T25139 | hypothetical prote | 906 | 32 | 34.8 | 351 | 2 | D97422 | probable methyl est |
| 834 | 32 | 34.8 | 213 | 2 | S72625 | hypothetical prote | 907 | 32 | 34.8 | 351 | 2 | AC2640 | protein-glutamate |
| 835 | 32 | 34.8 | 215 | 2 | C37273 | membrane glycoprot | 908 | 32 | 34.8 | 351 | 2 | S29979 | hype protein - Alc |
| 836 | 32 | 34.8 | 217 | 2 | I67410 | somatotropin - rhe | 909 | 32 | 34.8 | 352 | 1 | CBCEFX | cell division prot |
| 837 | 32 | 34.8 | 217 | 2 | T37859 | probable transcript | 910 | 32 | 34.8 | 352 | 2 | AB2248 | N-acetyl-glutamate |
| 838 | 32 | 34.8 | 218 | 2 | S60285 | B15C protein - bar | 911 | 32 | 34.8 | 352 | 2 | G91167 | cell division memb |
| 839 | 32 | 34.8 | 219 | 2 | A70314 | deoxyribose-phosph | 912 | 32 | 34.8 | 352 | 2 | G86013 | cell division memb |
| 840 | 32 | 34.8 | 227 | 2 | D71312 | probable Holliday | 913 | 32 | 34.8 | 353 | 2 | S33322 | (S)-2-hydroxy-acid |
| 841 | 32 | 34.8 | 230 | 1 | QJ7479 | E1 membrane glycop | 914 | 32 | 34.8 | 356 | 2 | S71179 | cinnamyl-alcohol d |
| 842 | 32 | 34.8 | 233 | 2 | A69004 | CDPdiacylglycerol - | 915 | 32 | 34.8 | 357 | 2 | S29275 | hypothetical prote |
| 843 | 32 | 34.8 | 234 | 1 | S02014 | homeotic protein H | 916 | 32 | 34.8 | 359 | 2 | JC5277 | G protein-coupled |
| 844 | 32 | 34.8 | 234 | 2 | S00992 | homeotic protein H | 917 | 32 | 34.8 | 360 | 2 | T08581 | cinnamyl-alcohol d |
| 845 | 32 | 34.8 | 235 | 2 | B84393 | phosphoserine phos | 918 | 32 | 34.8 | 360 | 2 | F70045 | two-component sens |
| 846 | 32 | 34.8 | 235 | 2 | S72429 | homeotic protein H | 919 | 32 | 34.8 | 363 | 2 | T05624 | cinnamyl-alcohol d |
| 847 | 32 | 34.8 | 235 | 2 | A56568 | homeotic protein H | 920 | 32 | 34.8 | 369 | 2 | G71515 | probable (cbs doma |
| 848 | 32 | 34.8 | 238 | 2 | AE2027 | hypothetical prote | 921 | 32 | 34.8 | 370 | 2 | G83513 | conserved hypotet |
| 849 | 32 | 34.8 | 239 | 2 | T39283 | hypothetical prote | 922 | 32 | 34.8 | 372 | 2 | AE2613 | DNA polymerase III |
| 850 | 32 | 34.8 | 245 | 2 | D87600 | 3-oxoacyl-(acyl-ca | 923 | 32 | 34.8 | 373 | 2 | E70864 | probable oxidoredu |
| 851 | 32 | 34.8 | 247 | 2 | T31204 | hypothetical prote | 924 | 32 | 34.8 | 383 | 2 | E84249 | 3-ketoacyl-CoA thi |
| 852 | 32 | 34.8 | 250 | 2 | T45893 | hypothetical prote | 925 | 32 | 34.8 | 385 | 2 | G97350 | xylR transcription |
| 853 | 32 | 34.8 | 252 | 2 | S56807 | hypothetical prote | 926 | 32 | 34.8 | 387 | 2 | B82891 | magnesium/cobalt t |
| 854 | 32 | 34.8 | 252 | 2 | E83612 | conserved hypotet | 927 | 32 | 34.8 | 387 | 2 | S75981 | ferrichrome transp |
| 855 | 32 | 34.8 | 255 | 2 | S04105 | myogenic factor 5 | 928 | 32 | 34.8 | 397 | 2 | S76786 | hypothetical prote |
| 856 | 32 | 34.8 | 260 | 2 | B53422 | peptidylprolyl iso | 929 | 32 | 34.8 | 403 | 2 | C97395 | DNA polymerase III |
| 857 | 32 | 34.8 | 262 | 2 | H83214 | probable permease | 930 | 32 | 34.8 | 404 | 2 | T30231 | cytochrome P450 - |
| 858 | 32 | 34.8 | 266 | 2 | D87265 | hypothetical prote | 931 | 32 | 34.8 | 407 | 2 | AE1599 | exo-alpha-sialidas |
| 859 | 32 | 34.8 | 271 | 2 | B86918 | hypothetical prote | 932 | 32 | 34.8 | 407 | 2 | AE1599 | conserved hypotet |
| 860 | 32 | 34.8 | 272 | 2 | T15889 | hypothetical prote | 933 | 32 | 34.8 | 408 | 2 | T01006 | hypothetical prote |
| 861 | 32 | 34.8 | 276 | 2 | T00923 | hypothetical prote | 934 | 32 | 34.8 | 409 | 2 | AG2869 | N-carbamoyl-beta-a |
| 862 | 32 | 34.8 | 281 | 2 | AH3012 | outer surface prot | 935 | 32 | 34.8 | 409 | 2 | T03001 | probable integrase |
| 863 | 32 | 34.8 | 282 | 2 | S47795 | probable transcript | 936 | 32 | 34.8 | 410 | 2 | E96729 | unknown protein F5 |
| 864 | 32 | 34.8 | 284 | 2 | G98271 | hypothetical prote | 937 | 32 | 34.8 | 411 | 2 | T01388 | oxidoreductase hom |
| 865 | 32 | 34.8 | 286 | 2 | H69470 | diptetide ABC tran | 938 | 32 | 34.8 | 412 | 2 | F64849 | probable permease |
| 866 | 32 | 34.8 | 287 | 2 | B95326 | AttB-like ABC tran | 939 | 32 | 34.8 | 412 | 2 | C99809 | hypothetical prote |
| 867 | 32 | 34.8 | 288 | 2 | AD2010 | hypothetical prote | 940 | 32 | 34.8 | 412 | 2 | G85668 | hypothetical prote |
| 868 | 32 | 34.8 | 287 | 2 | T38075 | conserved hypotet | 941 | 32 | 34.8 | 414 | 2 | A64504 | hypothetical prote |
| 869 | 32 | 34.8 | 291 | 2 | B71333 | conserved hypotet | 942 | 32 | 34.8 | 415 | 2 | A97646 | n-carbamoyl-beta-a |
| 870 | 32 | 34.8 | 291 | 2 | H83340 | hypothetical prote | 943 | 32 | 34.8 | 417 | 2 | I50407 | phosphoglycerate k |
| 871 | 32 | 34.8 | 295 | 2 | E75466 | hypothetical prote | 944 | 32 | 34.8 | 420 | 1 | DCECD | diaminopimelate de |
| 872 | 32 | 34.8 | 297 | 2 | H75132 | hypothetical prote | 945 | 32 | 34.8 | 420 | 2 | B85936 | diaminopimelate de |
| 873 | 32 | 34.8 | 297 | 2 | T45436 | hypothetical membr | 946 | 32 | 34.8 | 420 | 2 | G91090 | diaminopimelate de |
| 874 | 32 | 34.8 | 299 | 2 | S53395 | hypothetical prote | 947 | 32 | 34.8 | 422 | 2 | T51199 | hypothetical prote |
| 875 | 32 | 34.8 | 300 | 1 | B71090 | hypothetical prote | 948 | 32 | 34.8 | 425 | 2 | A98152 | sensor histidine k |
| 876 | 32 | 34.8 | 301 | 2 | S60936 | LEE1 protein + yea | 949 | 32 | 34.8 | 427 | 2 | F85436 | hypothetical prote |
| 877 | 32 | 34.8 | 306 | 2 | T47832 | hypothetical prote | 950 | 32 | 34.8 | 429 | 2 | T31001 | hypothetical prote |
| 878 | 32 | 34.8 | 308 | 2 | D71353 | hypothetical prote | 951 | 32 | 34.8 | 431 | 2 | S50633 | hypothetical prote |
| 879 | 32 | 34.8 | 308 | 2 | T45023 | hypothetical prote | 952 | 32 | 34.8 | 436 | 2 | AH2442 | hypothetical prote |
| 880 | 32 | 34.8 | 309 | 1 | E65112 | hypothetical 34.6 | 953 | 32 | 34.8 | 438 | 2 | B97111 | probable GTPase li |
| 881 | 32 | 34.8 | 309 | 2 | AH0906 | conserved hypotet | 954 | 32 | 34.8 | 440 | 2 | S37303 | sox-4 protein mo |
| 882 | 32 | 34.8 | 309 | 2 | E85985 | hypothetical prote | 955 | 32 | 34.8 | 442 | 2 | H86276 | Flu117.4 protein - |
| 883 | 32 | 34.8 | 309 | 2 | B91140 | hypothetical prote | 956 | 32 | 34.8 | 450 | 2 | S66942 | probable membrane |
| 884 | 32 | 34.8 | 312 | 1 | S22397 | pyruvate synthase | 957 | 32 | 34.8 | 452 | 2 | AC3136 | two component sens |
| 885 | 32 | 34.8 | 312 | 2 | E84268 | hypothetical prote | 958 | 32 | 34.8 | 454 | 1 | A45340 | nucleocapsid prote |
| 886 | 32 | 34.8 | 313 | 2 | G84449 | probable esterase | 959 | 32 | 34.8 | 454 | 1 | A45396 | nucleocapsid prote |
| 887 | 32 | 34.8 | 314 | 2 | B86908 | hypothetical prote | 960 | 32 | 34.8 | 454 | 1 | B45340 | nucleocapsid prote |
| 888 | 32 | 34.8 | 314 | 2 | B86928 | 34 kDa antigen lim | 961 | 32 | 34.8 | 454 | 1 | C45340 | nucleocapsid prote |
| 889 | 32 | 34.8 | 315 | 2 | B96685 | hypothetical prote | 962 | 32 | 34.8 | 455 | 1 | D45340 | nucleocapsid prote |
| 890 | 32 | 34.8 | 316 | 2 | T27194 | hypothetical prote | 963 | 32 | 34.8 | 455 | 1 | VH1HMJ | nucleocapsid prote |
| 891 | 32 | 34.8 | 321 | 2 | AE1282 | conserved hypotet | 964 | 32 | 34.8 | 456 | 2 | B96688 | unknown protein, 1 |
| 892 | 32 | 34.8 | 321 | 2 | AI1653 | conserved hypotet | 965 | 32 | 34.8 | 464 | 2 | T50785 | nucleoid DNA-bind |
| 893 | 32 | 34.8 | 323 | 2 | AC2481 | hypothetical prote | 966 | 32 | 34.8 | 465 | 2 | T27032 | hypothetical prote |
| 894 | 32 | 34.8 | 324 | 1 | A48953 | chologylglycine hyd | 967 | 32 | 34.8 | 489 | 2 | T39038 | hypothetical prote |
| 895 | 32 | 34.8 | 325 | 2 | D84060 | hypothetical prote | 968 | 32 | 34.8 | 495 | 2 | A95984 | probable xanthine |
| 896 | 32 | 34.8 | 326 | 2 | B71602 | probable secreted | 969 | 32 | 34.8 | 498 | 2 | T20646 | hypothetical prote |
| 897 | 32 | 34.8 | 326 | 2 | A33755 | myb-induced myeloi | 970 | 32 | 34.8 | 498 | 2 | H83793 | hypothetical prote |
| 898 | 32 | 34.8 | 327 | 2 | C97057 | spore protease [im | 971 | 32 | 34.8 | 498 | 2 | H71279 | probable femA prot |
| 899 | 32 | 34.8 | 330 | 2 | E95362 | probable Arac-fam1 | 972 | 32 | 34.8 | 500 | 2 | T20869 | hypothetical prote |
| 900 | 32 | 34.8 | 335 | 2 | E81278 | probable glycoprot | 973 | 32 | 34.8 | 503 | 2 | T30966 | hypothetical prote |
| 901 | 32 | 34.8 | 337 | 1 | A35260 | alcohol dehydrogen | 974 | 32 | 34.8 | 506 | 2 | D96672 | probable Cytochrom |
| 902 | 32 | 34.8 | 337 | 2 | S31131 | hypothetical prote | 975 | 32 | 34.8 | 509 | 2 | B84643 | hypothetical prote |
| 903 | 32 | 34.8 | 340 | 2 | B97011 | probably O-sialogl | 976 | 32 | 34.8 | 510 | 2 | A96673 | probable cytochrom |
| 904 | 32 | 34.8 | 340 | 2 | F88545 | protein F59B2.11 [| 977 | 32 | 34.8 | 511 | 2 | G96672 | hypothetical prote |
| 905 | 32 | 34.8 | 345 | 2 | T01348 | hypothetical prote | 978 | 32 | 34.8 | 511 | 2 | H96672 | probable cytochrom |

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979      32      34.8      511      2      T46865      phosphoglycerate m
980      32      34.8      512      2      E84501      probable cytochrom
981      32      34.8      514      2      A49838      site-specific reco
982      32      34.8      514      2      AF1988      fdxN element site-
983      32      34.8      515      2      T14340      sucrose-proton tra
984      32      34.8      518      2      AH3616      N-acylmannosamine
985      32      34.8      519      2      G84598      probable bZIP tran
986      32      34.8      523      2      C84753      hypothetical prote
987      32      34.8      524      2      A29600      alkaline phosphata
988      32      34.8      526      2      A41698      cell division cont
989      32      34.8      538      2      A83018      probable sodium/hy
990      32      34.8      551      2      AC2311      hypothetical prote
991      32      34.8      556      2      G88941      protein R13D1.8 [
992      32      34.8      559      2      C75286      hypothetical prote
993      32      34.8      561      2      S62552      hypothetical prote
994      32      34.8      562      2      T33174      hypothetical prote
995      32      34.8      565      2      T47330      hypothetical prote
996      32      34.8      565      2      A13356      comE operon protei
997      32      34.8      566      2      F97224      lon-like ATP-depen
998      32      34.8      569      2      T02435      probable oxyterol
999      32      34.8      570      2      T46261      hypothetical prote
1000     32      34.8      572      2      S44415      malate dehydrogena

ALIGNMENTS

RESULT 1
AMWUB
natriuretic peptide B precursor [validated] - human
N|Alternate names: brain natriuretic factor-32 (BNF-32); brain natriuretic protein precu
N|Contains: brain alpha natriuretic peptide; brain gamma natriuretic factor
C|Species: Homo sapiens (man)
C|Date: 07-Sep-1990 #sequence revision 02-Dec-1994 #text_change 09-Jul-2004
R|Seilhauer, J.J.; Arfsten, A.; Miller, J.A.; Lundquist, P.; Scarborough, R.M.; Lewicki,
Biochem. Biophys. Res. Commun. 185, 650-658, 1989
A|Title: Human and canine gene homologs of porcine brain natriuretic peptide.
A|Reference number: A36736; MUID:90088474; PMID:2597152
A|Accession: A36736
A|Molecule type: DNA
A|Residues: 1-134 <SD>
A|Cross-references: UNIPROT:P16860; UNIPARC:UPI00000350A5; GB:M31776; NID:g179514; PIDN:
R|Sudoh, T.; Maekawa, K.; Kojima, M.; Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 159, 1427-1434, 1989
A|Title: Cloning and sequence analysis of cDNA encoding a precursor for human brain natr
A|Reference number: A30163; MUID:89193743; PMID:2522777
A|Accession: A30163
A|Molecule type: mRNA
A|Residues: 1-134 <SD>
A|Cross-references: UNIPARC:UPI00000350A5; GB:M31776; NID:g179514; PIDN:AAA35603.1; PID:
R|Kabayashi, Y.; Nakao, K.; Mukoyama, M.; Saito, Y.; Ogawa, Y.; Shiono, S.; Inouye, K.;
FEBS Lett. 259, 341-345, 1990
A|Title: Isolation and sequence determination of human brain natriuretic peptide in huma
A|Reference number: A34143; MUID:90092577; PMID:2136732
A|Accession: A34143
A|Molecule type: protein
A|Residues: 103-134 <KAM>
A|Cross-references: UNIPARC:UPI00000350A8
R|Hino, J.; Tateyama, H.; Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 167, 693-700, 1990
A|Title: Isolation and identification of human brain natriuretic peptides in cardiac atr
A|Reference number: A90161; MUID:90211249; PMID:2138890
A|Accession: A34661
A|Molecule type: protein
A|Residues: 27-58 <HIN>
A|Cross-references: UNIPARC:UPI00001733AB
A|Accession: B34661
A|Molecule type: protein
A|Residues: 103-134 <HI2>
A|Cross-references: UNIPARC:UPI00001733AB
C|Genetics:
A|Gene: GDB:NPPB

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A|Cross-references: GDB:L27884; OMIM:600295
A|Map position: lp36-lp36
A|Intons: 44/3; 130/1
C|Superfamily: natriuretic peptide A precursor
C|Keywords: brain; diuretic; hormone; natriuretic; osmoregulation
F|1-36/Domain: signal sequence #status predicted <SIG>
F|27-134/Product: brain gamma natriuretic factor #status experimental <GNF>
F|103-134/Product: brain alpha natriuretic peptide #status experimental <ANF>
F|112-128/Disulfide bonds: #status predicted

Query Match      100.0%; Score 92; DB 1; Length 134;
Best Local Similarity 100.0%; Pred. No. 9.1e-09;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1      CFGRKMDRISSSSLGCG 17
Db      112      CFGRKMDRISSSSLGCG 128

RESULT 2
JC1081
brain natriuretic peptide - pig
C|Species: Sus scrofa domestica (domestic pig)
C|Date: 27-Aug-1995 #sequence_revision 19-Oct-1995 #text_change 16-Feb-1997
C|Accession: JC1081
R|Chen, H.; Zhang, J.; Wang, Q.S.; Cui, H.; Tang, J.
J. Fudan Univ. (Natur. Sci.) 30, 413-416, 1991
A|Title: Chemical synthesis and cloning of the porcine brain natriuretic gene.
A|Reference number: JC1081
A|Accession: JC1081
A|Molecule type: DNA
A|Residues: 1-27 <CHE>
A|Cross-references: UNIPARC:UPI0000176582
A|Note: The translation of the start codon ATG is not given in this paper
C|Genetics:
A|Gene: bnp
C|Superfamily: natriuretic peptide A precursor
C|Keywords: brain; natriuretic

Query Match      82.6%; Score 76; DB 2; Length 27;
Best Local Similarity 76.5%; Pred. No. 1.2e-06;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY      1      CFGRKMDRISSSSLGCG 17
Db      5      CFGRKMDRISSSSLGCG 21

RESULT 3
A41403
aldosterone secretion inhibitory factor precursor - bovine
C|Species: Bos primigenius taurus (cattle)
C|Date: 30-Jun-1992 #sequence_revision 30-Jun-1992 #text_change 09-Jul-2004
C|Accession: A41403; A30976
R|Nguyen, T.T.; Lazure, C.; Babinski, K.; Chretien, M.; De Lean, A.; Ong, H.
Mol. Endocrinol. 3, 1823-1829, 1989
A|Title: Purification and primary structure of pro-aldosterone secretion inhibitory fac
A|Reference number: A41403; MUID:90114187; PMID:2532709
A|Accession: A41403
A|Molecule type: protein
A|Residues: 1-103 <NGU>
A|Cross-references: UNIPROT:P13204; UNIPARC:UPI0000125AD9
R|Nguyen, T.T.; Lazure, C.; Babinski, K.; Chretien, M.; Ong, H.; de Lean, A.
Endocrinology 124, 1591-1593, 1989
A|Title: Aldosterone secretion inhibitory factor: a novel neuropeptide in bovine chroma
A|Reference number: A30976; MUID:89136947; PMID:2537187
A|Accession: A30976
A|Molecule type: protein
A|Residues: 69-103 <NG2>
A|Cross-references: UNIPARC:UPI0000176580
C|Superfamily: natriuretic peptide A precursor

Query Match      82.6%; Score 76; DB 2; Length 103;

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Best Local Similarity 76.5%; Pred. No. 4.8e-06;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
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Db 81 CFGRRLDRIGSLGSLGC 97

RESULT 4

A33873
brain natriuretic peptide - dog
C:Species: Canis lupus familiaris (dog)
C>Date: 19-Apr-1991 #sequence_revision 19-Apr-1991 #text_change 09-Jul-2004
C:Accession: B36736
R;Seilhamer, J.J.; Arfsten, A.; Miller, J.A.; Lundquist, P.; Scarborough, R.M.; Lewicki, J. Biochem. Biophys. Res. Commun. 165, 650-658, 1989
A:Title: Human and canine gene homologs of porcine brain natriuretic peptide.
A:Reference number: A36736; MUID:90088474; PMID:2597152
A:Accession: B36736
A>Status: preliminary
A:Molecule type: DNA
A:Residues: 1-105 <SEI>
A:Cross-references: UNIPROT:P16859; UNIPARC:UPI0000176581; GB:M31777
C:Superfamily: natriuretic peptide A precursor

Query Match 82.6%; Score 76; DB 2; Length 105;

Best Local Similarity 76.5%; Pred. No. 4.9e-06;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||||:|||||
Db 83 CFGRRLDRIGSLGSLGC 99

RESULT 5

A31676
brain natriuretic factor precursor - pig
N:Alternate names: brain natriuretic factor 32
C:Species: Sus scrofa domestica (domestic pig)
C>Date: 21-May-1990 #sequence_revision 21-May-1990 #text_change 09-Jul-2004
C:Accession: A31676; A31517; S06359
R;Maekawa, K.; Sudoh, T.; Furusawa, M.; Minamino, N.; Kangawa, K.; Ohkubo, H.; Nakanishi, Biochem. Biophys. Res. Commun. 157, 410-416, 1988
A:Title: Cloning and sequence analysis of cDNA encoding a precursor for porcine brain natriuretic factor.
A:Reference number: A31676; MUID:89061744; PMID:3196348
A:Accession: A31676
A:Molecule type: mRNA
A:Residues: 1-131 <NAE>
A:Cross-references: UNIPROT:P07634; UNIPARC:UPI00001561A8; GB:M23596; NID:G535704; PIDN:R;Sudoh, T.; Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 155, 726-732, 1988
A:Title: Brain natriuretic peptide-32: N-terminal six amino acid extended form of brain natriuretic factor.
A:Reference number: A31517; MUID:88339957; PMID:3421965
A:Accession: A31517
A:Molecule type: protein
A:Residues: 100-131 <SUD>
A:Cross-references: UNIPARC:UPI000003520D
R;Sudoh, T.; Kangawa, K.; Minamino, N.; Matsuo, H.
Nature 332, 78-81, 1988
A:Title: A new natriuretic peptide in porcine brain.
A:Reference number: S06359; MUID:88156915; PMID:2964562
A:Accession: S06359
A:Molecule type: protein
A:Residues: 106-131 <SU2>
A:Cross-references: UNIPARC:UPI000003520C
C:Superfamily: natriuretic peptide A precursor
C:Keywords: brain; natriuretic
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-131/Product: brain gamma natriuretic factor #status predicted <GAM>
F:100-131/Product: brain alpha natriuretic peptide #status experimental <ALF>
F:109-125/Disulfide bonds: #status experimental

Query Match 82.6%; Score 76; DB 2; Length 131;

Best Local Similarity 76.5%; Pred. No. 6.1e-06;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
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Db 109 CFGRRLDRIGSLGSLGC 125

RESULT 6

A33873
brain natriuretic peptide precursor - pig
C:Species: Sus scrofa domestica (domestic pig)
C>Date: 27-Feb-1990 #sequence_revision 27-Feb-1990 #text_change 09-Jul-2004
C:Accession: A33873; A31675
R;Porter, J.G.; Arfsten, A.; Palisi, T.; Scarborough, R.M.; Lewicki, J.A.; Seilhamer, J. J. Biol. Chem. 264, 6689-6692, 1989
A:Title: Cloning of a cDNA encoding porcine brain natriuretic peptide.
A:Reference number: A33873; MUID:89214071; PMID:2708334
A:Accession: A33873
A>Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-131 <POR>
A:Cross-references: UNIPROT:P07634; UNIPARC:UPI0000125ADB; GB:M25547; GB:J04708; GB:M22
R;Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 157, 402-409, 1988
A:Title: Isolation and identification of a high molecular weight brain natriuretic peptide.
A:Reference number: A31675; MUID:89061743; PMID:3196347
A:Accession: A31675
A>Status: preliminary
A:Molecule type: protein
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A:Cross-references: UNIPARC:UPI000017657F
C:Superfamily: natriuretic peptide A precursor

Query Match 82.6%; Score 76; DB 2; Length 131;

Best Local Similarity 76.5%; Pred. No. 6.1e-06;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||||:|||||
Db 109 CFGRRLDRIGSLGSLGC 125

RESULT 7

S71381
lebetin 2 isoform alpha - Vipera lebetina
C:Species: Vipera lebetina
C>Date: 11-Mar-1998 #sequence_revision 17-Apr-1998 #text_change 09-Jul-2004
C:Accession: S71381; S71382; S71379
R;Barbouche, R.; Marrakchi, N.; Mansuette, P.; Krifi, M.; Fenouillet, E.; Rochat, H.; E. FEBS Lett. 392, 6-10, 1996
A:Title: Novel anti-platelet aggregation polypeptides from Vipera lebetina venom: isolation and characterization of two peptides.
A:Reference number: S71379; MUID:96354866; PMID:8769304
A:Accession: S71381
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A:Accession: S71382
A:Molecule type: protein
A:Residues: 2-38 <BA2>
A:Cross-references: UNIPARC:UPI0000030734
A:Experimental source: venom
A:Accession: S71379
A:Molecule type: protein
A:Residues: 1-13 <BA3>
A:Cross-references: UNIPARC:UPI000003072F
A:Experimental source: venom
C:Keywords: anticoagulant; venom
F:14-30/Disulfide bonds: #status predicted

Query Match 80.4%; Score 74; DB 2; Length 38;
Best Local Similarity 76.5%; Pred. No. 3.9e-06;

Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||| |:||| |:|||
Db 14 CFGHKIDRIGSHSGLGC 30

RESULT 8
A36155
natriuretic peptide C precursor - pig
C:Species: Sus scrofa domestica (domestic pig)
C>Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C:Accession: A36155; A35423; A34642
R:Tawaragi, Y.; Fuchimura, K.; Nakazato, H.; Tanaka, S.; Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 172, 627-632, 1990
A:Title: Gene and precursor structure of porcine C-type natriuretic peptide.
A:Reference number: A36155; MUID:91054475; PMID:2146957
A:Accession: A36155
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-126 <TAW>
A:Cross-references: UNIPARC:UPI0000125AE0; EMBL:M64758; NID:G309789; PID
R:Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 170, 973-979, 1990
A:Title: N-terminally extended form of C-type natriuretic peptide (CNP-53) identified in
A:Reference number: A35423; MUID:90343827; PMID:2383278
A:Accession: A35423
A:Status: preliminary
A:Molecule type: protein
A:Residues: 74-126 <MIN>
A:Cross-references: UNIPARC:UPI0000035212
R:Sudoh, T.; Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 168, 863-870, 1990
A:Title: C-type natriuretic peptide (CNP): a new member of natriuretic peptide family id
A:Reference number: A34642; MUID:90241265; PMID:2139780
A:Accession: A34642
A:Status: preliminary
A:Molecule type: protein
A:Residues: 105-126 <SUD>
A:Cross-references: UNIPARC:UPI0000033C90
C:Superfamily: natriuretic peptide C precursor
C:Keywords: disulfide bond; diuretic; hormone; natriuretic; osmoregulation
F:1-23/Domain: signal sequence #status predicted <SIG>
F:74-126/Product: natriuretic peptide C-53 #status experimental <C53>
F:98-126/Product: natriuretic peptide C-29 #status predicted <C29>
F:105-126/Product: natriuretic peptide C-22 #status experimental <C22>
F:110-126/Disulfide bonds: #status predicted

Query Match 79.3%; Score 73; DB 1; Length 126;
Best Local Similarity 76.5%; Pred. No. 2e-05;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||| |:||| |:|||
Db 110 CFGLKLDRIGSMGLGC 126

RESULT 9
AWHUC
natriuretic peptide C precursor [validated] - human
N:Alternate names: natriuretic factor C
N:Contains: natriuretic peptide C-22; natriuretic peptide C-29; natriuretic peptide C-53
C:Species: Homo sapiens (man)
C>Date: 17-Apr-1993 #sequence_revision 02-Dec-1994 #text_change 09-Jul-2004
C:Accession: JT0567; JCI361; I54400
R:Tawaragi, Y.; Fuchimura, K.; Tanaka, S.; Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 175, 645-651, 1991
A:Title: Gene and precursor structures of human C-type natriuretic peptide.
A:Reference number: JT0567; MUID:91207363; PMID:2018508
A:Accession: JT0567
A:Molecule type: DNA
A:Residues: 1-126 <TAW>
A:Cross-references: UNIPROT:P23582; UNIPARC:UPI00000033C91; GB:M64710; NID:G180676; PIDN:

R:Ishizaka, Y.; Kangawa, K.; Minamino, N.; Ishii, K.; Takano, S.; Eto, T.; Matsuo, H.
Biochem. Biophys. Res. Commun. 189, 697-704, 1992
A:Title: Isolation and identification of C-type natriuretic peptide in human monocyte
A:Reference number: JCI361; MUID:93112033; PMID:1472040
A:Accession: JCI361
A:Molecule type: protein
A:Residues: 98-109, 'X', 111-118 <ISH>
A:Cross-references: UNIPARC:UPI00001733AE
R:Ogawa, Y.; Nakao, K.; Nakagawa, O.; Komatsu, Y.; Hosoda, K.; Suga, S.; Arai, H.; Nagat
Hypertension 19, 809-813, 1992
A:Title: Human C-type natriuretic peptide, Characterization of the gene and peptide.
A:Reference number: I54400; MUID:92275775; PMID:1339402
A:Accession: I54400
A:Status: translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-126 <RES>
A:Cross-references: UNIPARC:UPI00000033C91; GB:D90337; NID:G219542; PIDN:BAA14351.1; PID:
C:Genetics:
A:Gene: GDB:NPPC
A:Cross-references: GDB:250346; OMIM:600296
A:Map position: 2pter-2qter
A:Introns: 30/3
C:Superfamily: natriuretic peptide C precursor
C:Keywords: brain; diuretic; hormone; natriuretic; osmoregulation
F:1-23/Domain: signal sequence #status predicted <SIG>
F:74-126/Product: natriuretic peptide C-53 #status predicted <C53>
F:98-126/Product: natriuretic peptide C-29 #status experimental <C29>
F:105-126/Product: natriuretic peptide C-22 #status predicted <C22>
F:110-126/Disulfide bonds: #status predicted

Query Match 79.3%; Score 73; DB 1; Length 126;
Best Local Similarity 76.5%; Pred. No. 2e-05;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||| |:||| |:|||
Db 110 CFGLKLDRIGSMGLGC 126

RESULT 10
A55688
natriuretic peptide c precursor - mouse
C:Species: Mus musculus (house mouse)
C>Date: 03-Mar-1995 #sequence_revision 03-Mar-1995 #text_change 09-Jul-2004
C:Accession: A55688
R:Ogawa, Y.; Itoh, H.; Yoshitake, Y.; Inoue, M.; Yoshimasa, T.; Serikawa, T.; Nakao, K.
Genomics 24, 383-387, 1994
A:Title: Molecular cloning and chromosomal assignment of the mouse C-type natriuretic p
A:Reference number: A55688; MUID:95213034; PMID:7698765
A:Accession: A55688
A:Status: preliminary; not compared with conceptual translation
A:Molecule type: DNA
A:Residues: 1-126 <OGA>
A:Cross-references: UNIPROT:Q61839; UNIPARC:UPI00000033FF3; GB:D28873; NID:G633087; PIDN:
C:Genetics:
A:Gene: Nppc
C:Superfamily: natriuretic peptide C precursor

Query Match 79.3%; Score 73; DB 2; Length 126;
Best Local Similarity 76.5%; Pred. No. 2e-05;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||| |:||| |:|||
Db 110 CFGLKLDRIGSMGLGC 126

RESULT 11
S12988
brain natriuretic peptide type C - rat
C:Species: Rattus norvegicus (Norway rat)
C>Date: 18-Feb-1994 #sequence_revision 10-Nov-1995 #text_change 09-Jul-2004
C:Accession: S12988

R.;Kojima, M.; Minamino, N.; Kangawa, K.; Matsuo, H.
FEBS Lett. 276, 209-213, 1990
A;Title: Cloning and sequence analysis of a cDNA encoding a precursor for rat C-type natriuretic peptide.
A;Reference number: S12988; MUID:91092420; PMID:1702395
A;Accession: S12988
A;Molecule type: mRNA
A;Residues: 1-126 <KOJ>
A;Cross-references: UNIPROT:P55207; UNIPARC:UPI0000125AE2; GB:D90219; NID:g220711; PIDN:
C;Superfamily: natriuretic peptide C precursor

Query Match 79.3%; Score 73; DB 2; Length 126;
Best Local Similarity 76.5%; Pred. No. 2e-05;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||| :||| :||| :|||
Db 110 CFGLKLDRIKSMGLGC 126

RESULT 12
S14320
alpha-atrial natriuretic peptide precursor - chicken
C;Species: Gallus gallus (chicken)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: S14320; A31509
R;Akizuki, N.; Kangawa, K.; Minamino, N.; Matsuo, H.
FEBS Lett. 280, 357-362, 1991
A;Title: Cloning and sequence analysis of complementary DNA encoding a precursor for chicken atrial natriuretic peptide.
A;Reference number: S14320; MUID:91192169; PMID:1826483
A;Accession: S14320
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-140 <AKI>
A;Cross-references: UNIPROT:P18908; UNIPARC:UPI0000125AFA; GB:X57702; NID:g63648; PIDN:
R;Miyata, A.; Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 155, 1330-1337, 1988
A;Title: Identification of a 29-amino acid natriuretic peptide in chicken heart.
A;Reference number: A31509; MUID:89025805; PMID:2972278
A;Accession: A31509
A;Molecule type: protein
A;Residues: 112-140 <MIY>
A;Cross-references: UNIPARC:UPI00000351EC
C;Superfamily: natriuretic peptide A precursor
F;118-134/Disulfide bonds: #status experimental

Query Match 79.3%; Score 73; DB 1; Length 140;
Best Local Similarity 70.6%; Pred. No. 2.2e-05;
Matches 12; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||| :||| :||| :|||
Db 118 CFGRIDRIKSLGMGC 134

RESULT 13
JT0581
natriuretic peptide type C - chicken
C;Species: Gallus gallus (chicken)
C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 09-Jul-2004
C;Accession: JT0581
R;Arimura, J.J.; Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 174, 142-148, 1991
A;Title: Isolation and identification of C-type natriuretic peptide in chicken brain.
A;Reference number: JT0581; MUID:91113186; PMID:1989595
A;Accession: JT0581
A;Molecule type: protein
A;Residues: 1-22 <ARI>
A;Cross-references: UNIPROT:P21805; UNIPARC:UPI0000035211
A;Experimental source: brain
C;Superfamily: natriuretic peptide A precursor
C;Keywords: diuretic; hormone; natriuretic; osmoregulation

Query Match 78.3%; Score 72; DB 2; Length 22;
Best Local Similarity 76.5%; Pred. No. 6.2e-06;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Best Local Similarity 76.5%; Pred. No. 5e-06;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||| :||| :||| :|||
Db 6 CFGLKLDRIKSMGLGC 22

RESULT 14
A35418
brain natriuretic peptide - Japanese eel
C;Species: Anguilla japonica (Japanese eel)
C;Date: 18-Jan-1991 #sequence_revision 18-Jan-1991 #text_change 09-Jul-2004
C;Accession: A35418
R;Takei, Y.; Takahashi, A.; Watanabe, T.X.; Nakajima, K.; Sakakibara, S.; Takao, T.; Sh
Biochem. Biophys. Res. Commun. 170, 883-891, 1990
A;Title: Amino acid sequence and relative biological activity of a natriuretic peptide
A;Reference number: A35418; MUID:90343814; PMID:2143379
A;Accession: A35418
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-22 <TAK>
A;Cross-references: UNIPROT:P18145; UNIPARC:UPI000003520A
C;Superfamily: natriuretic peptide A precursor

Query Match 78.3%; Score 72; DB 2; Length 22;
Best Local Similarity 76.5%; Pred. No. 5e-06;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||| :||| :||| :|||
Db 6 CFGLKLDRIKSLGLGC 22

RESULT 15
A33431
atrial natriuretic factor - Japanese eel
C;Species: Anguilla japonica (Japanese eel)
C;Date: 27-Feb-1990 #sequence_revision 27-Feb-1990 #text_change 09-Jul-2004
C;Accession: A33431
R;Takei, Y.; Takahashi, A.; Watanabe, T.X.; Nakajima, K.; Sakakibara, S.
Biochem. Biophys. Res. Commun. 164, 537-543, 1989
A;Title: Amino acid sequence and relative biological activity of eel atrial natriuretic
A;Reference number: A33431; MUID:90026430; PMID:2529857
A;Accession: A33431
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-27 <TAK>
A;Cross-references: UNIPROT:P18144; UNIPARC:UPI00000351F9
C;Superfamily: natriuretic peptide A precursor

Query Match 78.3%; Score 72; DB 2; Length 27;
Best Local Similarity 76.5%; Pred. No. 6.2e-06;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||| :||| :||| :|||
Db 7 CFGLKLDRIKSLGLGC 23

RESULT 16
S15821
ventricular natriuretic peptide - Japanese eel
C;Species: Anguilla japonica (Japanese eel)
C;Date: 04-Dec-1992 #sequence_revision 04-Dec-1992 #text_change 09-Jul-2004
C;Accession: S15821
R;Takei, Y.; Takahashi, A.; Watanabe, T.X.; Nakajima, K.; Sakakibara, S.
FEBS Lett. 282, 317-320, 1991
A;Title: A novel natriuretic peptide isolated from eel cardiac ventricles.
A;Reference number: S15821; MUID:91243821; PMID:1828035
A;Accession: S15821
A;Molecule type: protein
A;Residues: 1-36 <FEB>

Proc. Natl. Acad. Sci. U.S.A. 81, 6325-6329, 1984
A:Title: Molecular cloning and characterization of DNA sequences encoding rat and human
A:Reference number: I39458; MUID:85038509; PMID:6238331
A:Accession: I39458
A>Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 119-151, 'RR' <RE2>
A:Cross-references: UNIPARC:UPI000002DD32; GB:X02044; NID:g178631; PIDN:AAA51730.1; PID:
R;Waki, M.; Parmentier, M.; Inagami, T.
Biochem. Biophys. Res. Commun. 125, 797-802, 1984
A:Title: Cloning of genomic DNA for human atrial natriuretic factor.
A:Reference number: I39459; MUID:85096983; PMID:6097248
A:Accession: I39459
A>Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-75 <RE3>
A:Cross-references: UNIPARC:UPI000016A556; GB:X02399; NID:g178633; PIDN:AAA35528.1; PID:
R;Seidman, C.E.; Bloch, K.D.; Zisfein, J.; Smit, J.; Haber, E.; Homcy, C.J.; Duby, A.D.;
Hypertension 7, 31-34, 1985
A:Title: Molecular studies of the atrial natriuretic factor gene.
A:Reference number: I39460
A:Accession: I39460
A>Status: translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-64, 'D', '66-151' <RE4>
A:Cross-references: UNIPARC:UPI000016A557; GB:M54951; NID:g178636; PIDN:AAA35529.1; PID:
R;Greenberg, B.D.; Bencen, G.H.; Seilhamer, J.J.; Lewicki, J.A.; Fiddes, J.C.
Nature 312, 656-658, 1984
A:Title: Nucleotide sequence of the gene encoding human atrial natriuretic factor precursor
A:Reference number: I37167; MUID:85061627; PMID:6095119
A:Accession: I37167
A>Status: translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 26-151 <RE5>
A:Cross-references: UNIPARC:UPI0000156DAE; EMBL:X01471; NID:g28690; PIDN:CAA25700.1; PID:
C;Comment: Cardiolipin is a vasoconstrictor but not a diuretic or natriuretic.
C;Genetics:
A:Gene: GDB:NPPA; ANP; PND
A:Cross-references: GDB:118727; OMIM:108780
A:Map position: 1p36-1p36
A:Introns: 41/3; 150/3
C:Superfamily: natriuretic peptide A precursor
C:Keywords: atrium; diuretic; hormone; natriuretic; osmoregulation
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-151/Product: cardiolipin #status predicted <CDD>
F:124-151/Product: atrial alpha natriuretic peptide #status experimental <ANP>
F:130-146/Disulfide bonds: #status experimental

Query Match 77.2%; Score 71; DB 1; Length 151;
Best Local Similarity 70.6%; Pred. No. 5.4e-05;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
|||:||||:|||||
DB 130 CFGRMDRIGAQSGLGC 146

RESULT 20
ANBO
atrial natriuretic peptide precursor - bovine
N:Alternate names: ANP; atrial natriuretic polypeptide
C:Species: Bos primigenius taurus (cattle)
C:Date: 30-Jun-1989 #sequence revision 30-Jun-1989 #text_change 09-Jul-2004
C:Accession: A90124; A93049; A24247; A26090
R;Vlasuk, G.P.; Miller, J.; Bencen, G.H.; Lewicki, J.A.
Biochem. Biophys. Res. Commun. 136, 396-403, 1986
A:Title: Structure and analysis of the bovine atrial natriuretic peptide precursor gene.
A:Reference number: A90124; MUID:86215205; PMID:2939830
A:Molecule type: DNA
A:Residues: 1-152 <VIA>
A:Cross-references: UNIPROT:P07501; UNIPARC:UPI0000125AF7; GB:M13145; NID:g162665; PIDN:
R;Ong, H.; McNicoll, N.; Lazure, C.; Seidah, N.; Chretien, M.; Cantin, M.; De Lean, A.

Life Sci. 38, 1309-1315, 1986
A:Title: Purification and sequence determination of bovine atrial natriuretic factor.
A:Reference number: A93049; MUID:86173941; PMID:3007908
A:Accession: A93049
A:Molecule type: protein
A:Residues: 123-150 <ONG>
A:Cross-references: UNIPARC:UPI000002B7D3
C;Genetics:
A:Introns: 40/3; 149/3
C:Superfamily: natriuretic peptide A precursor
C:Keywords: atrium; diuretic; hormone; natriuretic; osmoregulation
F:1-24/Domain: signal sequence #status predicted <SIG>
F:25-152/Product: gamma atrial natriuretic factor #status predicted <ANP>
F:123-150/Product: alpha atrial natriuretic peptide #status experimental <ANP>
F:129-145/Disulfide bonds: #status predicted

Query Match 77.2%; Score 71; DB 1; Length 152;
Best Local Similarity 70.6%; Pred. No. 5.4e-05;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
|||:||||:|||||
DB 129 CFGRMDRIGAQSGLGC 145

RESULT 21
SI4873
atrial natriuretic peptide precursor - horse
C:Species: Equus caballus (domestic horse)
C:Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 09-Jul-2004
C:Accession: SI4873
R;Maegert, H.J.; Hanke, M.; Schmedding, G.; Teuteberg, K.; Schulz-Knappe, P.; Forssmann,
submitted to the EMBL Data Library, March 1991
A:Reference number: SI4872
A:Accession: SI4873
A>Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-153 <MAE>
A:Cross-references: UNIPROT:P27104; UNIPARC:UPI0000125AFB; EMBL:X58563; NID:g1008; PIDN:
C:Superfamily: natriuretic peptide A precursor

Query Match 77.2%; Score 71; DB 2; Length 153;
Best Local Similarity 70.6%; Pred. No. 5.5e-05;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
|||:||||:|||||
DB 130 CFGRMDRIGAQSGLGC 146

RESULT 22
I55480
hypothetical natriuretic peptide/phage fr coat protein mutant fusion protein - synthetic
C:Species: synthetic
A:Date: Homo sapiens (man) and phage fr genes engineered and expressed in Escherichia
C:Date: 02-Jul-1996 #sequence_revision 05-Sep-1996 #text_change 20-Oct-2000
C:Accession: I55480
R;Berzins, V.; Jansone, I.; Skangals, A.; Kalnins, P.; Liepa, S.; Baumanis, V.
J. Biotechnol. 30, 231-243, 1993
A:Title: High level expression of alpha-human atrial natriuretic factor as a fusion pol.
A:Reference number: I55480; MUID:93384792; PMID:7764035
A:Accession: I55480
A>Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-161 <BER>
A:Cross-references: UNIPARC:UPI0000045710; GB:S66567; NID:g435742; PIDN:AAC60713.1; PID:
C:Keywords: fusion protein

Query Match 77.2%; Score 71; DB 4; Length 161;
Best Local Similarity 70.6%; Pred. No. 5.8e-05;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17


```
|||| :|||| : |||||
Db      140 CFGGRMDRIGASGLGC 156

RESULT 23
B54119
C-type natriuretic peptide II precursor - bullfrog
C:Species: Rana catesbeiana (bullfrog)
C>Date: 07-Jul-1995 #sequence_revision 07-Jul-1995 #text_change 09-Jul-2004
C:Accession: B54119
R:Kojima, M.; Ohyama, Y.; Miyamoto, K.; Minamino, N.; Kangawa, K.; Matsuo, H.
J. Biol. Chem. 269, 13136-13140, 1994
A:Title: Cloning and characterization of a novel natriuretic peptide in frog (Rana catesbeiana)
A:Reference number: A54119; MUID:94230409; PMID:8175740
A:Accession: B54119
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-118 <KOJ>
A:Cross-references: UNIPROT:P40756; UNIPARC:UPI0000125AE5; GB:D17414; NID:G397835; PIDN:
A:Note: authors translated the codon AAA for residue 89 as Ile
C:Superfamily: natriuretic peptide C precursor

Query Match      76.1%; Score 70; DB 2; Length 118;
Best Local Similarity 70.6%; Pred. No. 6.3e-05;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY      1 CFGGRMDRISSSSGLGC 17
|||| :|||| : |||||
Db      102 CFGKLDRIAGMSGLGC 118

RESULT 24
A61244
natriuretic peptide type C precursor - spiny dogfish
C:Species: Squalus acanthias (spiny dogfish)
C>Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C:Accession: A61244; 151329
R:Schofield, J.P.; Jones, D.S.C.; Forrest Jr., J.N.
Am. J. Physiol. 261, F734-F739, 1991
A:Title: Identification of C-type natriuretic peptide in heart of spiny dogfish shark (Sphyrna tiburo)
A:Reference number: A61244; MUID:92026459; PMID:1928383
A:Accession: A61244
A:Molecule type: mRNA
A:Residues: 1-135 <SCH>
A:Cross-references: UNIPROT:P41319; UNIPARC:UPI0000125AE5; EMBL:X59991; NID:G556803; PIDN:
C:Genetics:
A:Introns: 30/3
C:Superfamily: natriuretic peptide A precursor
C:Keywords: disulfide bond; diuretic; hormone; natriuretic; osmoregulation
F;1-25/Domain: signal sequence #status predicted <SIG>
F;114-135/Product: natriuretic peptide C #status predicted <NPC>
F;119-135/Disulfide bonds: #status predicted

Query Match      76.1%; Score 70; DB 1; Length 135;
Best Local Similarity 70.6%; Pred. No. 7.3e-05;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY      1 CFGGRMDRISSSSGLGC 17
|||| :|||| : |||||
Db      119 CFGKLDRIAGMSGLGC 135

RESULT 25
S15822
natriuretic peptide type C - smaller spotted catshark
C:Species: Scyliorhinus canicula (smaller spotted catshark, smaller spotted dogfish)
C>Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C:Accession: S15822
R:Suzuki, R.; Takahashi, A.; Hazon, N.; Takei, Y.
FEBS Lett. 282, 321-325, 1991
A:Title: Isolation of high-molecular-weight C-type natriuretic peptide from the heart of the smaller spotted catshark (Scyliorhinus canicula)
A:Reference number: S15822; MUID:91243822; PMID:1828036
A:Accession: S15822
```

```
A:Molecule type: protein
A:Residues: 1-115 <FEB>
A:Cross-references: UNIPROT:P23259; UNIPARC:UPI0000125AE3
C:Superfamily: natriuretic peptide A precursor

Query Match      75.0%; Score 69; DB 1; Length 115;
Best Local Similarity 70.6%; Pred. No. 9.3e-05;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY      1 CFGGRMDRISSSSGLGC 17
|||| :|||| : |||||
Db      99 CFGVKLDRIAGMSGLGC 115

RESULT 26
A36399
C-type natriuretic peptide - frog
C:Species: Ranidae gen. sp. (frog)
C>Date: 01-Feb-1991 #sequence_revision 01-Feb-1991 #text_change 09-Jul-2004
C:Accession: A36399
R:Oshihara, A.; Kozawa, H.; Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 173, 591-598, 1990
A:Title: Isolation and sequence determination of frog C-type natriuretic peptide.
A:Reference number: A36399; MUID:91083642; PMID:2148082
A:Accession: A36399
A:Status: preliminary
A:Molecule type: protein
A:Residues: 1-22 <YOS>
A:Cross-references: UNIPROT:P20968; UNIPARC:UPI00001566AB
C:Superfamily: natriuretic peptide A precursor

Query Match      73.9%; Score 68; DB 2; Length 22;
Best Local Similarity 70.6%; Pred. No. 2.6e-05;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY      1 CFGGRMDRISSSSGLGC 17
|||| :|||| : |||||
Db      6 CFGVKLDRIAGMSGLGC 22

RESULT 27
A54119
C-type natriuretic peptide I precursor - bullfrog
N:Alternate names: CNP I
C:Species: Rana catesbeiana (bullfrog)
C>Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C:Accession: A54119
R:Kojima, M.; Ohyama, Y.; Miyamoto, K.; Minamino, N.; Kangawa, K.; Matsuo, H.
J. Biol. Chem. 269, 13136-13140, 1994
A:Title: Cloning and characterization of a novel natriuretic peptide in frog (Rana catesbeiana)
A:Reference number: A54119; MUID:94230409; PMID:8175740
A:Accession: A54119
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-129 <KOJ>
A:Cross-references: UNIPROT:P20968; UNIPARC:UPI0000125AE1; GB:D17413; NID:G397837; PIDN:
C:Superfamily: natriuretic peptide A precursor

Query Match      73.9%; Score 68; DB 1; Length 129;
Best Local Similarity 70.6%; Pred. No. 0.00016;
Matches 12; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY      1 CFGGRMDRISSSSGLGC 17
|||| :|||| : |||||
Db      113 CFGVKLDRIAGMSGLGC 129

RESULT 28
A29370
atrial natriuretic peptide precursor - mouse
C:Species: Mus musculus (house mouse)
C>Date: 31-Mar-1988 #sequence_revision 31-Mar-1988 #text_change 09-Jul-2004
C:Accession: A29370; B43619
```

R;Seidman, C.E.; Bloch, K.D.; Klein, K.A.; Smith, J.A.; Seidman, J.G.
Science 226, 1206-1209, 1984
A;Title: Nucleotide sequences of the human and mouse atrial natriuretic factor genes.
A;Reference number: A29370; MUID:85065766; PMID:6542248
A;Accession: A29370
A;Molecule type: DNA
A;Residues: 1-152 <SEI>
A;Cross-references: UNIPROT:P05125; UNIPARC:UPI0000027BFB; GB:K02781; NID:g191937; PIDN:
C;Genetics:
A;Introns: 40/3; 149/3
C;Superfamily: natriuretic peptide A precursor
C;Keywords: atrium; diuretic; hormone; natriuretic; osmoregulation
F;1-24/Domain: signal sequence #status predicted <SIG>
F;25-150/Product: gamma atrial natriuretic factor #status predicted <ANP>
F;123-150/Product: alpha atrial natriuretic peptide #status predicted <ANP>
F;129-145/Disulfide bonds: #status predicted

Query Match 72.8%; Score 67; DB 1; Length 152;
Best Local Similarity 64.7%; Pred. No. 0.00028;
Matches 11; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
||| :||| :|||
Db 129 CFGRIDRIGAQSGLC 145

RESULT 29
ANRT
atrial natriuretic factor precursor - rat
N;Contains: ANF(1-33); ANF(2-33); ANF(3-33); ANF(8-33); atrial natriuretic peptide; atr
C;Species: Rattus norvegicus (Norway rat)
C;Date: 19-Feb-1984 #sequence revision 15-Nov-1984 #text change 09-Jul-2004
A;Accession: A22570; A01425; A93330; A94275; PT0061; A20973; A44190; A60
R;Argentin, S.; Nemer, M.; Drouin, J.; Scott, G.K.; Kennedy, B.P.; Davies, P.L.
J. Biol. Chem. 260, 4568-4571, 1985
A;Title: The gene for rat atrial natriuretic factor.
A;Reference number: A22570; MUID:85182558; PMID:2985557
A;Accession: A22570
A;Molecule type: DNA
A;Residues: 1-152 <ARG>
A;Cross-references: UNIPROT:P01161; UNIPARC:UPI0000125B00; GB:K02062; NID:g202899; PIDN:
R;Yamanaka, M.; Greenberg, B.; Johnson, L.; Seilhamer, J.; Brewer, M.; Friedemann, T.; M
Nature 309, 719-722, 1984
A;Title: Cloning and sequence analysis of the cDNA for the rat atrial natriuretic factor
A;Reference number: A93331; MUID:84219797; PMID:6547210
A;Accession: A01425
A;Molecule type: mRNA
A;Residues: 1-152 <YAM>
A;Cross-references: UNIPARC:UPI0000125B00; EMBL:X00665; NID:g55711; PIDN:CAA25285.1; PID
R;Maki, M.; Takayanagi, R.; Wilson, K.S.; Pandey, K.N.; Tibbetts, C.; Inagami, T.
Nature 309, 722-724, 1984
A;Title: Structure of rat atrial natriuretic factor precursor deduced from cDNA sequence
A;Reference number: A93332; MUID:84219798; PMID:6328328
A;Accession: A93332
A;Molecule type: mRNA
A;Residues: 1-152 <WAK>
A;Cross-references: UNIPARC:UPI0000125B00; GB:X00665; EMBL:X00658; NID:g55711; PIDN:CAA2
R;Seidman, C.E.; Duby, A.D.; Choi, E.; Graham, R.M.; Haber, E.; Homcy, C.; Smith, J.A.;
Science 225, 324-326, 1984
A;Title: The structure of rat preproatrial natriuretic factor as defined by a complement
A;Reference number: A43617; MUID:84250178; PMID:6234658
A;Accession: A43617
A;Molecule type: mRNA
A;Residues: 1-152 <SEI>
A;Cross-references: UNIPARC:UPI0000125B00; GB:K02062; NID:g202899; PIDN:AAA40
R;Atlas, S.A.; Kleiner, H.D.; Camargo, M.J.; Januszewicz, A.; Sealey, J.E.; Laragh, J.H
Nature 309, 717-719, 1984
A;Title: Purification, sequencing and synthesis of natriuretic and vasoactive rat atrial
A;Reference number: A93330; MUID:84219796; PMID:6233494
A;Accession: A93330
A;Molecule type: protein
A;Residues: 126-149 <ATL>
A;Cross-references: UNIPARC:UPI00000351FC

R;Currie, M.G.; Geller, D.M.; Cole, B.R.; Siegel, N.R.; Fok, K.F.; Adams, S.P.; Eubanks
Science 223, 67-69, 1984
A;Title: Purification and sequence analysis of bioactive atrial peptides (atriopeptins)
A;Reference number: A94275; MUID:84097513; PMID:6419347
A;Accession: A94275
A;Molecule type: protein
A;Residues: 127-149 <CUR>
A;Cross-references: UNIPARC:UPI00000351FB
R;Thibault, G.; Murthy, K.K.; Gutkowska, J.; Seidah, N.G.; Lazure, C.; Chretien, M.; Ca
Peptides 9, 47-53, 1988
A;Title: NH2-terminal fragment of rat pro-atrial natriuretic factor in the circulation:
A;Reference number: PT0061; MUID:88203350; PMID:2966345
A;Accession: PT0061
A;Molecule type: protein
A;Residues: 25-28,'X',30-31,'X',33,'X',35-38 <THI>
A;Cross-references: UNIPARC:UPI00001733AA
R;Seidah, N.G.; Lazure, C.; Chretien, M.; Thibault, G.; Garcia, R.; Cantin, M.; Genest,
Proc. Natl. Acad. Sci. U.S.A. 81, 2640-2644, 1984
A;Title: Amino acid sequence of homologous rat atrial peptides: natriuretic activity of
A;Reference number: A20973; MUID:84194062; PMID:6232612
A;Accession: A20973
A;Molecule type: protein
A;Residues: 118-150 <SE2>
A;Cross-references: UNIPARC:UPI000002BE79
R;Flynn, T.G.; Davies, P.L.; Kennedy, B.P.; de Bold, M.L.; de Bold, A.J.
Science 228, 323-325, 1985
A;Title: Alignment of rat cardionatrin sequences with the preprocardionatrin sequence f
A;Reference number: A44190; MUID:85168263; PMID:3157217
A;Accession: A44190
A;Molecule type: mRNA
A;Residues: 1-152 <PLY>
A;Cross-references: UNIPARC:UPI0000125B00; GB:K02062; NID:g202899; PIDN:AAA40735.1; PID
A;Note: part of this sequence, including the amino ends of three mature peptides, was c
R;Belcourt, D.; Vayma, D.R.; Toney, K.; Bennett, H.P.J.
Protein Expr. Purif. 1, 28-32, 1990
A;Title: Purification of rat pro-atrial natriuretic factor: a simplified scheme using r
A;Reference number: A60390; MUID:93044510; PMID:2152180
A;Accession: A60390
A;Molecule type: protein
A;Residues: 25-39 <BEL>
A;Cross-references: UNIPARC:UPI00000E66C9
R;Gardner, D.G.; Vlasuk, G.P.; Baxter, J.D.; Fiddes, J.C.; Lewicki, J.A.
Proc. Natl. Acad. Sci. U.S.A. 84, 2175-2179, 1987
A;Title: Identification of atrial natriuretic factor gene transcripts in the central ne
A;Reference number: I59094; MUID:87175636; PMID:2951736
A;Accession: I59094
A;Status: translated from GB/EMBL/DBDJ
A;Molecule type: mRNA
A;Residues: 38-152 <RES>
A;Cross-references: UNIPARC:UPI0000170882; GB:M15868; NID:g202903; PIDN:AAA40736.1; PID
R;Kangawa, K.; Tawaragi, Y.; Oikawa, S.; Mizuno, A.; Sakuragawa, Y.; Nakazato, H.; Fuku
-Nature 312, 152-155, 1984
A;Title: Identification of rat gamma atrial natriuretic polypeptide and characterizatio
A;Reference number: I58057; MUID:85061500; PMID:6239103
A;Accession: I58057
A;Status: preliminary; translated from GB/EMBL/DBDJ
A;Molecule type: mRNA
A;Residues: 1-152 <RE2>
A;Cross-references: UNIPARC:UPI0000125B00; EMBL:X01118; NID:g55716; PIDN:CAA25586.1; PI
R;Flynn, T.G.
Can. J. Physiol. Pharmacol. 65, 2013-2020, 1987
A;Title: the elucidation of atrial natriuretic factor, a new peptide h
A;Reference number: I52678; MUID:88109092; PMID:2962707
A;Accession: I52678
A;Status: preliminary; translated from GB/EMBL/DBDJ
A;Molecule type: mRNA
A;Residues: 1-51,'X',53-85,'X',87-152 <RE3>
A;Cross-references: UNIPARC:UPI0000170883; GB:M27498; NID:g202905; PIDN:AAA40737.1; PID
C;Comment: A disulfide bond is required for full activity of atriopetins.
C;Genetics:
A;Gene: ANF
A;Introns: 40/3; 149/3

C;Superfamily: natriuretic peptide A precursor
C;Keywords: atrium; diuretic; hormone; natriuretic; osmoregulation
F;1-24/Domain: signal sequence #status predicted <SIG>
F;25-152/Product: pro-atrial natriuretic factor #status experimental <PRO>
F;25-150/Product: cardionatriin IV #status experimental <CN4>
F;773-150/Product: cardionatriin III #status experimental <CN3>
F;118-150/Product: ANF(1-33) #status experimental <ANF1>
F;119-150/Product: ANF(2-33) #status experimental <ANF2>
F;120-150/Product: ANF(3-33) #status experimental <ANF3>
F;123-150/Product: cardionatriin I #status experimental <CN1>
F;125-150/Product: ANF(8-33) #status experimental <ANF4>
F;126-150/Product: auriculin B #status experimental <AUB>
F;126-150/Product: auriculin A #status experimental <AUA>
F;127-150/Product: atrial natriuretic factor #status predicted <MAT>
F;127-149/Product: atriopeptin I #status experimental <AT1>
F;127-147/Product: atriopeptin II #status experimental <AT2>
F;129-145/Disulfide bonds: #status experimental

Query Match 72.8%; Score 67; DB 1; Length 152;
Best Local Similarity 64.7%; Pred. No. 0.00028;
Matches 11; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSLGCG 17
||| :||| : ||||
Db 129 CFGGRIDRIGASQGLGC 145

RESULT 30
ANRB
atrial natriuretic peptide precursor - rabbit
N;Alternate names: ANP; atrial natriuretic polypeptide
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 31-Mar-1988 #sequence_revision 31-Mar-1988 #text_change 09-Jul-2004
C;Accession: B25302
R;Okawa, S.; Inai, M.; Inuzuka, C.; Tawaragi, Y.; Nakazato, H.; Matsuo, H.
Biochem. Biophys. Res. Commun. 132, 892-899, 1985
A;Title: Structure of dog and rabbit precursors of atrial natriuretic polypeptides deduced from complementary DNA
A;Reference number: A90119; MUID:86076957; PMID:2934062
A;Accession: B25302
A;Molecule type: mRNA
A;Residues: 1-153 <OIK>
A;Cross-references: UNIPROT:P07500; UNIPARC:UPI0000125AFE; GB:M12046; NID:g164770; PIDN:
C;Superfamily: natriuretic peptide A precursor
C;Keywords: atrium; diuretic; hormone; natriuretic; osmoregulation
F;1-25/Domain: signal sequence #status predicted <SIG>
F;26-151/Product: gamma atrial natriuretic factor #status predicted <ANF>
F;124-151/Product: alpha atrial natriuretic peptide #status predicted <ANP>
F;130-146/Disulfide bonds: #status predicted

Query Match 72.8%; Score 67; DB 1; Length 153;
Best Local Similarity 64.7%; Pred. No. 0.00028;
Matches 11; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSLGCG 17
||| :||| : ||||
Db 130 CFGGRIDRIGASQGLGC 146

RESULT 31
S01657
atrial natriuretic factor - laughing frog (tentative sequence) (fragment)
N;Alternate names: atriopeptin
C;Species: Rana ridibunda (laughing frog)
C;Date: 01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change 09-Jul-2004
C;Accession: S01657; A30977
R;Lazure, C.; Ong, H.; McNicoll, N.; Netchitailo, P.; Chretien, M.; de Lean, A.; Vaudry, R.
FEBS Lett. 238, 300-306, 1988
A;Title: The amino acid sequences of frog heart atrial natriuretic-like peptide and mammalian atrial natriuretic peptide
A;Reference number: S01657; MUID:89005705; PMID:2971573
A;Accession: S01657
A;Molecule type: protein
A;Residues: 1-30 <LAZ>
A;Cross-references: UNIPROT:P09196; UNIPARC:UPI00000351F2

A;Note: the sequence from the summary is inconsistent with that from Fig. 3 in lacking r
C;Superfamily: natriuretic peptide A precursor

Query Match 71.7%; Score 66; DB 2; Length 30;
Best Local Similarity 58.8%; Pred. No. 8e-05;
Matches 10; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSLGCG 17
||| :||| : ||||
Db 11 CFGSRIDRIGASQGMGC 27

RESULT 32
JQ0947
atrial natriuretic peptide precursor - bullfrog
N;Alternate names: ANP; atrial natriuretic factor (ANF)
N;Contents: atrial natriuretic peptide-21; atrial natriuretic peptide-24
C;Species: Rana catesbeiana (bullfrog)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: JQ0947; A31510
R;Kojima, M.
submitted to JIPID, May 1991
A;Reference number: JQ0947
A;Accession: JQ0947
A;Molecule type: mRNA
A;Residues: 1-145 <KOJ>
A;Cross-references: UNIPROT:P18909; UNIPARC:UPI0000125AFF
R;Sakata, J.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 155, 1338-1345, 1988
A;Title: Identification of new atrial natriuretic peptides in frog heart.
A;Reference number: A31510; MUID:89025806; PMID:2972279
A;Accession: A31510
A;Molecule type: protein
A;Residues: 122-145 <SAK>
A;Cross-references: UNIPARC:UPI00000351EF
C;Comment: In mammals, several active peptides may be derived from the prohormone.
C;Superfamily: natriuretic peptide A precursor
C;Keywords: atrium; diuretic; hormone; natriuretic; osmoregulation
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-121/Domain: propeptide #status predicted <PRO>
F;122-145/Product: atrial natriuretic peptide-24 #status experimental <M24>
F;125-145/Product: atrial natriuretic peptide-21 #status experimental <M21>
F;125-141/Disulfide bonds: #status predicted

Query Match 71.7%; Score 66; DB 1; Length 145;
Best Local Similarity 58.8%; Pred. No. 0.0004;
Matches 10; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSLGCG 17
||| :||| : ||||
Db 125 CFGSRIDRIGASQGMGC 141

RESULT 33
A49144
type-B natriuretic peptide, BNP - mouse
C;Species: Mus musculus (house mouse)
C;Date: 19-Dec-1993 #sequence_revision 18-Nov-1994 #text_change 16-Jul-1999
C;Accession: A49144
R;Steinhilber, M.E.
Circ. Res. 72, 984-992, 1993
A;Title: Structure, expression, and genomic mapping of the mouse natriuretic peptide ty
A;Reference number: A49144; MUID:93238395; PMID:8097440
A;Accession: A49144
A;Status: preliminary
A;Molecule type: nucleic acid
A;Residues: 1-121 <STE>
A;Cross-references: UNIPARC:UPI0000176583; GB:S58667; NID:g299794; PIDN:AA26344.1; PID
A;Experimental source: BAUS/c
A;Note: sequence inconsistent with the nucleotide translation
C;Superfamily: natriuretic peptide A precursor

```

Query Match          70.7%; Score 65; DB 2; Length 121;
Best Local Similarity 70.6%; Pred. No. 0.0005;
Matches 12; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Qy 1 CFGKMDRIRSSSSGLGC 17
Db 99 CFGHKIDRIGSVSLGC 115

RESULT 34
149548
brain natriuretic peptide - mouse
C:Species: Mus musculus (house mouse)
C:Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
C:Accession: I49548
F:Ogawa, Y.; Itoh, H.; Tamura, N.; Suga, S.; Yoshimasa, T.; Uehira, M.; Matsuda, S.; Shih J. Clin. Invest. 93, 1911-1921, 1994
A:Title: Molecular cloning of the complementary DNA and gene that encode mouse brain natriuretic peptide
A:Reference number: I49548; MUID:94237953; PMID:8182124
A:Accession: I49548
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-121 <RES>
A:Cross-references: UNIPROT:P40753; UNIPARC:UPI0000000CE3; GB:D16497; NID:g493659; PIDN:
C:Genetics:
A:Gene: BNP
A:Introns: 42/3; 117/1
C:Superfamily: natriuretic peptide A precursor

Query Match          70.7%; Score 65; DB 2; Length 121;
Best Local Similarity 70.6%; Pred. No. 0.0005;
Matches 12; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Qy 1 CFGKMDRIRSSSSGLGC 17
Db 99 CFGHKIDRIGSVSLGC 115

RESULT 35
S14872
atrial natriuretic peptide precursor - guinea pig (fragment)
C:Species: Cavia porcellus (guinea pig)
C:Date: 20-Feb-1995 #sequence_revision 30-Jan-1998 #text_change 09-Jul-2004
C:Accession: S14872
F:Maegart, H.J.; Hanke, M.; Schmeding, G.; Teuteberg, K.; Schulz-Knappe, P.; Forssmann, M.; Maegart, H.J. The EMBL Data Library, March 1991
A:Reference number: S14872
A:Accession: S14872
A:Molecule type: mRNA
A:Residues: 1-128 <MAE>
A:Cross-references: UNIPROT:P27596; UNIPARC:UPI0000125AF9; EMBL:X58562; NID:g49543; PIDN:
A:Experimental source: heart atria; adult
C:Superfamily: natriuretic peptide A precursor
C:Keywords: atrium; diuretic; hormone; natriuretic; osmoregulation
F:1-98/Domain: signal sequence #status predicted <SIG>
F:99-128/Product: atrial natriuretic peptide #status predicted <MAT>
F:105-121/Disulfide bonds: #status predicted

Query Match          70.7%; Score 65; DB 2; Length 128;
Best Local Similarity 64.7%; Pred. No. 0.00053;
Matches 11; Conservative 2; Mismatches 4; Indels 0; Gaps 0;

Qy 1 CFGKMDRIRSSSSGLGC 17
Db 105 CFGGMDRIGAQSSGLC 121

RESULT 36
A42974
natriuretic peptide, DNP - eastern green mamba
C:Species: Dendroaspis angusticeps (eastern green mamba)
C:Date: 04-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
C:Accession: A42974

```

A;Title: Isolation and characterization of iso-rANP, a new natriuretic peptide from rat
A;Reference number: A3253; MUID:89286593; PMID:2525380
A;Accession: A3253
A;Molecule type: protein
A;Residues: 77-119, 'Q', 121 <FLY>
A;Cross-references: UNIPARC:UPI0001733AD
R;Nakao, K.; Itoh, H.; Kambayashi, Y.; Hosoda, K.; Saito, Y.; Yamada, T.; Mukoyama, M.;
Hypertension 15, 774-778, 1990
A;Title: Rat brain natriuretic peptide. Isolation from rat heart and tissue distribution
A;Reference number: A60735; MUID:90277148; PMID:2351430
A;Accession: A60735
A;Molecule type: protein
A;Residues: 77-121 <NAK>
A;Cross-references: UNIPARC:UPI000003520F
R;Dagino, L.; Drouin, J.; Nemer, M.
Mol. Endocrinol. 5, 1292-1300, 1991
A;Title: Differential expression of natriuretic peptide genes in cardiac and extracardiac
A;Reference number: I57704; MUID:92123224; PMID:1837590
A;Accession: I57704
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-121 <RES>
A;Cross-references: UNIPARC:UPI0000125ADC; GB:M60266; NID:G204983; PIDN:AAA41455.1; PID:
C;Genetics: 42/3; 117/1
A;Introns: 42/3; 117/1
C;Superfamily: natriuretic peptide A precursor
C;Keywords: cardiac muscle; heart
F;1-26/Domain: signal sequence #status predicted <SIG>
F;27-121/Product: brain natriuretic factor #status experimental <MAT1>
F;77-121/Product: brain natriuretic factor BNP-45 #status experimental <MAT2>

Query Match 68.5%; Score 63; DB 1; Length 121;
Best Local Similarity 64.7%; Pred. No. 0.0011;
Matches 11; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISSSSGLGC 17
|||:||||:||||
DB 99 CFCQKIDRIGAVSRLLGC 115

RESULT 38
AH3254
acetyl-CoA:acetoacetyl-CoA transferase alpha chain (EC 2.8.3.-) [imported] - Brucella melitensis
C;Species: Brucella melitensis
C;Date: 01-Feb-2002 #sequence_revision 01-Feb-2002 #text_change 09-Jul-2004
A;Accession: AH3254
R;DelVecchio, V.G.; Kaputral, V.; Redkar, R.J.; Patra, G.; Mujar, C.; Loz, T.; Ivanova,
.; Mazur, M.; Goltsman, E.; Selkov, E.; Elzer, P.H.; Hagius, S.; O'Callaghan, D.; Letessier,
Proc. Natl. Acad. Sci. U.S.A. 99, 443-448, 2002
A;Title: The genome sequence of the facultative intracellular pathogen Brucella melitensis
A;Reference number: AD3252; PMID:11756688
A;Accession: AH3254
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-496 <KUR>
A;Cross-references: UNIPROT:Q8YJR1; UNIPARC:UPI0000057B02; GB:AE008917; PIDN:AAL51203.1;
A;Experimental source: strain 16M
C;Genetics:
A;Gene: BMEI0021
A;Map position: I
C;Keywords: CoA-transferase

Query Match 47.8%; Score 44; DB 2; Length 496;
Best Local Similarity 88.9%; Pred. No. 11;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 9 ISSSSSGLGC 17
:|||||||
DB 22 VSSSSSGLGC 30

RESULT 39
H86463

F12G12.17 protein - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004
A;Accession: H86463
A;Molecule type: protein
A;Residues: 77-119, 'Q', 121 <FLY>
A;Cross-references: UNIPARC:UPI00000A9922; GB:AE005172; NID:G10086475; I:
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federgruel, N.A.; Kaul, S.; White, O.; Alonso,
Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.;
ansen, N.F.; Hughes, B.; Huizar, L.
Nature 408, 816-820, 2000
A;Authors: Hunter, J.B.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.;
C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Mafti, R.; Marziani,
Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon,
ker, M.; Wu, D.; Yu, G.; Frazer, C.M.; Venter, J.C.; Davis, R.W.
A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.
A;Reference number: A86141; MUID:21016719; PMID:11130712
A;Accession: H86463
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-231 <STO>
A;Cross-references: UNIPROT:Q9FX12; UNIPARC:UPI00000A9922; GB:AE005172; NID:G10086475; I:
C;Genetics:
A;Map position: 1
C;Superfamily: Arabidopsis hypothetical protein T22J18.4

Query Match 46.7%; Score 43; DB 2; Length 231;
Best Local Similarity 63.6%; Pred. No. 7.6;
Matches 7; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISS 11
|||||:|:
DB 139 CFCGRKSERLES 149

RESULT 40
T24265
hypothetical protein T01B4.1 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
A;Accession: T24265
R;Wilkinson, J.
submitted to the EMBL Data Library, March 1996
A;Reference number: Z19866
A;Accession: T24265
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: DNA
A;Residues: 1-522 <WIL>
A;Cross-references: UNIPROT:Q22042; UNIPARC:UPI000007D5F5; EMBL:Z70036; PIDN:CAA93875.1;
A;Experimental source: clone T01B4
C;Genetics:
A;Gene: CBSP:T01B4.1
A;Map position: X
A;Introns: 95/3; 142/1; 224/3; 290/1; 458/1

Query Match 46.7%; Score 43; DB 2; Length 522;
Best Local Similarity 53.3%; Pred. No. 18;
Matches 8; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISSSSGL 15
|||||:|:
DB 197 CFCGRKQKRASSLASI 211

RESULT 41
F64593
pyruvate synthase (SC 1.2.7.1) beta chain - Helicobacter pylori (strain 26695)
C;Species: Helicobacter pylori
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 16-Aug-2004
A;Accession: F64593
R;Tomb, J.F.; White, O.; Kerlavage, A.R.; Clayton, R.A.; Sutton, G.G.; Fleischmann, R.D.
Peterson, S.; Loftus, B.; Richardson, D.; Dodson, R.; Khalak, H.G.; Glodok, A.; McKen
son, J.D.; Kelley, J.M.; Cotton, M.D.; Weidman, J.M.; Fujii, C.; Bowman, C.; Watthey, L
Nature 388, 539-547, 1997
A;Authors: Wallin, B.; Hayes, W.S.; Borodovsky, M.; Karpk, P.D.; Smith, H.O.; Fraser, C

A:Title: The complete genome sequence of the gastric pathogen *Helicobacter pylori*.
A:Reference number: A64520; MUID:97394467; PMID:9252185
A:Accession: F64593
A>Status: preliminary; nucleic acid sequence not shown; translation not shown
A:Molecule type: DNA
A:Residues: 1-273 <TOM>
A:Cross-references: UNIPROT:O25312; UNIPARC:UPI00000D3008; GB:AE000572; GB:AE000511; NID:
C:Superfamily: 2-oxoacid:ferredoxin oxidoreductase, beta subunit
C:Keywords: coenzyme A; oxidoreductase

Query Match 45.7%; Score 42; DB 1; Length 273;
Best Local Similarity 53.3%; Pred. No. 14;
Matches 8; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 3 GRKMDRISSSSGLGC 17
| | | | : | | | |
DB 39 GWKMDVCLVSGTGC 53
| | | | : | | | |

RESULT 42
H71919
chain of 2-oxoglutarate oxidoreductase - *Helicobacter pylori* (strain J99)
C:Species: *Helicobacter pylori*
A:Variety: strain J99
C>Date: 12-Feb-1999 #sequence_revision 12-Feb-1999 #text_change 05-Oct-2004
C:Accession: H71919
R:Alm, R.A.; Ling, L.S.L.; Moir, D.T.; King, B.L.; Brown, E.D.; Doig, P.C.; Smith, D.R.;
Ives, C.; Gibson, R.; Merberg, D.; Mills, S.D.; Jiang, Q.; Taylor, D.E.; Vovis, G.F.;
Nature 397, 176-180, 1999
A:Title: Genomic sequence comparison of two unrelated isolates of the human gastric path
A:Reference number: A71800; MUID:99120557; PMID:99233682
A:Accession: H71919
A>Status: preliminary
A:Molecule type: DNA
A:Residues: 1-273 <ARN>
A:Cross-references: UNIPROT:O9ZLP0; UNIPARC:UPI00000D364F; GB:AE001486; GB:AE001439; NID:
A:Experimental source: strain J99
C:Genetics:
A:Gene: oorB
C:Superfamily: 2-oxoacid:ferredoxin oxidoreductase, beta subunit

Query Match 45.7%; Score 42; DB 2; Length 273;
Best Local Similarity 53.3%; Pred. No. 14;
Matches 8; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 3 GRKMDRISSSSGLGC 17
| | | | : | | | |
DB 39 GWKMDVCLVSGTGC 53
| | | | : | | | |

RESULT 43
T51402
serine/threonine-specific protein kinase-like protein - *Arabidopsis thaliana*
N:Alternate names: protein F14F8_110
C:Species: *Arabidopsis thaliana* (mouse-ear cross)
C>Date: 18-Aug-2000 #sequence_revision 18-Aug-2000 #text_change 05-Oct-2004
C:Accession: T51402
R:Sato, S.; Nakamura, Y.; Kaneko, T.; Kato, T.; Asamizu, E.; Kotani, H.; Tabata, S.; Mew
submitted to the Protein Sequence Database, August 2000
A:Reference number: Z25394
A:Accession: T51402
A>Status: preliminary
A:Molecule type: DNA
A:Residues: 1-436 <SAT>
A:Cross-references: UNIPROT:Q9LFV3; UNIPARC:UPI0000048B47; EMBL:AL391144
A:Experimental source: cultivar Columbia; BAC clone F14F8
C:Genetics:
A:Map position: 5
A:Introns: 107/2; 158/3; 202/1; 254/3; 322/3
A>Note: F14F8_110

Query Match 45.7%; Score 42; DB 2; Length 436;
Best Local Similarity 57.1%; Pred. No. 22;

Matches 8; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

QY 3 GRKMDRISSSSGLG 16
| | | | : | | | |
DB 385 GRQDTMSSSPGVG 398
| | | | : | | | |

RESULT 44
D64760
yahr protein - *Escherichia coli* (strain K-12)
C:Species: *Escherichia coli*
C>Date: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 09-Jul-2004
C:Accession: D64760
R:Blattner, F.R.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland, V.; Riley, M.; C.
.A.; Rose, D.J.; Mau, B.; Shao, Y.
Science 277, 1453-1462, 1997
A:Title: The complete genome sequence of *Escherichia coli* K-12.
A:Reference number: A64720; MUID:97426617; PMID:9278503
A:Accession: D64760
A>Status: nucleic acid sequence not shown; translation not shown
A:Molecule type: DNA
A:Residues: 1-148 <BLAT>
A:Cross-references: UNIPROT:O65941; UNIPARC:UPI00000C0A32; GB:AE000140; GB:U000096; NID:
A:Experimental source: strain K-12, substrain MG1655
C:Genetics:
A:Gene: yahr
C:Superfamily: *Escherichia coli* yahr protein

Query Match 44.6%; Score 41; DB 2; Length 148;
Best Local Similarity 50.0%; Pred. No. 11;
Matches 6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

QY 6 MDRISSSSGLGC 17
| | | | : | | | |
DB 19 ISRVSGASGIGC 30
| | | | : | | | |

RESULT 45
T41462
transcription regulator - fission yeast (*Schizosaccharomyces pombe*)
C:Species: *Schizosaccharomyces pombe*
C>Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
C:Accession: T41462
R:Lyne, M.; Rajandream, M.A.; Barrell, B.G.; Volckaert, G.
submitted to the EMBL Data Library, November 1998
A:Reference number: Z21996
A:Accession: T41462
A>Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-307 <LYN>
A:Cross-references: UNIPROT:O14311; UNIPARC:UPI0000135E92; EMBL:AL034381; PIDN:CAA22271
A:Experimental source: strain 972h-; cosmid c61
C:Genetics:
A:Gene: SPDB:SPCC61.02
A:Map position: 3
C:Superfamily: transcription regulator SPCC61.02

Query Match 44.6%; Score 41; DB 2; Length 307;
Best Local Similarity 66.7%; Pred. No. 23;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 KMDRISSSSGLG 16
| | | | : | | | |
DB 235 RMDRIQSSSGSG 246
| | | | : | | | |

RESULT 46
B95358
probable acyl-CoA transferase (EC 2.8.3.-) [imported] - *Sinorhizobium meliloti* (strain
C:Species: *Sinorhizobium meliloti*
C>Date: 24-Aug-2001 #sequence_revision 24-Aug-2001 #text_change 09-Jul-2004
C:Accession: B95358
R:Barnett, M.J.; Fisher, R.F.; Jones, T.; Komp, C.; Abola, A.P.; Barloy-Hubler, F.; Bow;

.; Kalman, S.; Keating, D.H.; Palm, C.; Peck, M.C.; Surzycki, R.; Wells, D.H.; Yeh, K.C. Proc. Natl. Acad. Sci. U.S.A. 98, 9883-9888, 2001
A:Title: Nucleotide sequence and predicted functions of the entire *Sinorhizobium meliloti* A:Reference number: A95262; MUID:21396509; PMID:11481432
A:Accession: B95358
A:Status: preliminary
A:Molecule type: DNA
A:Keywords: 1-523 <KUR>
A:Cross-references: UNIPROT:Q92YU3; UNIPARC:UPI00000CB1D1; GB:AE006459; PIDN:AAK65428.1;
A:Experimental source: strain 1021, megaplasmid pSymA
R:Galibert, F.; Finan, T.M.; Long, S.R.; Puhler, A.; Abola, P.; Ampe, F.; Barloy-Hubier, P.; Chain, P.; Cowie, A.; Davis, R.W.; Dreano, S.; Federspiel, N.A.; Fisher, R.F.; L.; Hyman, R.W.; Jones, T. Science 293, 668-672, 2001
A:Authors: Kahn, D.; Kahn, M.L.; Kalman, S.; Keating, D.H.; Kiss, E.; Komp, C.; Lelaure, Hebaull, P.; Vandenbol, M.; Vorholter, P.J.; Weidner, S.; Wells, D.H.; Wong, K.; Yeh, K. A:Title: The composite genome of the legume symbiont *Sinorhizobium meliloti*. A:Reference number: A96039; MUID:21368234; PMID:11474104
A:Contents: annotation
C:Genetics:
A:Gene: SMal409
A:Genome: plasmid
C:Keywords: CoA-transferase
Query Match 44.6%; Score 41; DB 2; Length 523;
Best Local Similarity 77.8%; Pred. No. 40;
Matches 7; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
QY 9 ISSSSGLGC 17
Db 22 VNSSSGLGC 30
RESULT 47
E87627
hypothetical protein CC3055 [imported] - *Caulobacter crescentus*
C:Species: *Caulobacter crescentus*
C:Date: 20-Apr-2001 #sequence_revision 20-Apr-2001 #text_change 09-Jul-2004
A:Accession: E87627
R:Nierman, W.C.; Feldblyum, T.V.; Paulsen, I.T.; Nelson, K.B.; Eisen, J.; Heidelberg, J. B.; Laub, M.T.; DeBoy, R.T.; Dodson, R.J.; Durkin, A.S.; Gwinn, M.L.; Haft, D.H.; Kolon, J.; Emolaeva, M.; White, O.; Salzberg, S.L.; Shapiro, L.; Venter, J.C.; Fraser, C.M. Proc. Natl. Acad. Sci. U.S.A. 98, 4136-4141, 2001
A:Title: Complete Genome Sequence of *Caulobacter crescentus*. A:Reference number: A87249; MUID:21173698; PMID:11259647
A:Accession: E87627
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-738 <STO>
A:Cross-references: UNIPROT:Q9A3Z5; UNIPARC:UPI00000C7933; GB:AE005673; MID:g13424701; F A:Gene: CC3055
Query Match 44.6%; Score 41; DB 2; Length 738;
Best Local Similarity 64.3%; Pred. No. 57;
Matches 9; Conservative 0; Mismatches 5; Indels 0; Gaps 0;
QY 1 CFGKMDRISSSSSG 14
Db 695 CFGVKRPSASSSG 708
RESULT 48
S74219
alpha-galactosidase (EC 3.2.1.22) II precursor - fungus (*Trichoderma reesei*)
C:Species: *Trichoderma reesei*
C:Date: 04-Dec-1997 #sequence_revision 12-Dec-1997 #text_change 09-Jul-2004
A:Accession: S74219
R:Margolles-Clark, E.; Tenkanen, M.; Luonteri, E.; Penttilae, M. Eur. J. Biochem. 240, 104-111, 1996
A:Title: Three alpha-galactosidase genes of *Trichoderma reesei* cloned by expression in *Y* A:Reference number: S74218; MUID:96330869; PMID:8797842
A:Accession: S74219

A:Status: nucleic acid sequence not shown
A:Molecule type: mRNA
A:Residues: 1-746 <MAR>
A:Cross-references: UNIPROT:Q92457; UNIPARC:UPI000006A7AC; EMBL:Z69254; MID:g1580817; P1 C:Genetics:
A:Gene: agl2
C:Superfamily: alpha-galactosidase II
C:Keywords: glycoprotein; glycosidase; hydrolase
F:1-26/Domain: signal sequence #status predicted <SIG>
F:127-746/Product: alpha-galactosidase II #status predicted <MAT>
F:423,156,180,188,360,427,446,495,714/Binding site: carbohydrate (Asn) (covalent) #status
Query Match 44.6%; Score 41; DB 2; Length 746;
Best Local Similarity 53.3%; Pred. No. 57;
Matches 8; Conservative 3; Mismatches 4; Indels 0; Gaps 0;
QY 2 FGKMDRISSSSSGLG 16
Db 386 FGKHPRVSDNAGLG 400
RESULT 49
AF1755
bacteriophage protein homolog lin2587 [imported] - *Listeria innocua* (strain Clip11262)
C:Species: *Listeria innocua*
C:Date: 27-Nov-2001 #sequence_revision 27-Nov-2001 #text_change 09-Jul-2004
A:Accession: AF1755
R:Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche, P.; Bloecker, D.; Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; Fsihi, H. Science 294, 849-852, 2001
A:Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; Maitournam, A.; M ok, C.; Schlueter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J.A.; Voss, H.; Wehlend, A. A:Title: Comparative genomics of *Listeria species*. A:Reference number: AB1077; MUID:21537279; PMID:11679669
A:Accession: AF1755
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-757 <GLA>
A:Cross-references: UNIPROT:Q928E8; UNIPARC:UPI00000CC901; GB:AL592022; PIDN:CAC97814.1; A:Experimental source: strain Clip11262
C:Genetics:
A:Gene: lin2587
Query Match 44.6%; Score 41; DB 2; Length 757;
Best Local Similarity 60.0%; Pred. No. 58;
Matches 9; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
QY 1 CFGKMDRISSSSSG 15
Db 242 CNAKMDLFRSSGL 256
RESULT 50
H83190
Probable outer membrane protein PA3648 [imported] - *Pseudomonas aeruginosa* (strain PAO1)
C:Species: *Pseudomonas aeruginosa*
C:Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
A:Accession: H83190
R:Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrenner, P.; Hickey, M.J.; B adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim, .; Lory, S.; Olson, M.V. Nature 406, 959-964, 2000
A:Title: Complete genome sequence of *Pseudomonas aeruginosa* PAO1, an opportunistic path A:Reference number: AB2950; MUID:20437337; PMID:10984043
A:Accession: H83190
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-797 <STO>
A:Cross-references: UNIPROT:Q9HYX4; UNIPARC:UPI00000C5AA3; GB:AE004784; GB:AE004091; NI A:Experimental source: strain PAO1
C:Genetics:
A:Gene: PA3648

C;Superfamily: protective surface antigen D-15

Query Match 44.6%; Score 41; DB 2; Length 797;
Best Local Similarity 50.0%; Pred. NO. 61;
Matches 8; Conservative 3; Mismatches 5; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSLG 16
Db 745 CDGKTDNLASSVG 760

Search completed: January 25, 2006, 18:48:18
Job time : 35 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 25, 2006, 18:44:48 ; Search time 62 Seconds
(without alignments)
114.566 Million cell updates/sec

Title: US-10-737-290-172

Perfect score: 92

Sequence: 1 CPGKXWDRISSSGLGC 17

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 1000 summaries

Database : Published Applications AA Main:

- 1: /cgn2_6/prodata/1/pubpaa/US07_PUBCOMB.pep.*
- 2: /cgn2_6/prodata/1/pubpaa/US08_PUBCOMB.pep.*
- 3: /cgn2_6/prodata/1/pubpaa/US09_PUBCOMB.pep.*
- 4: /cgn2_6/prodata/1/pubpaa/US10A_PUBCOMB.pep.*
- 5: /cgn2_6/prodata/1/pubpaa/US10B_PUBCOMB.pep.*
- 6: /cgn2_6/prodata/1/pubpaa/US11_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query Match | Length | ID | Description |
|------------|-------|-------------|--------|----|-------------------|
| 1 | 92 | 100.0 | 17 | 4 | US-10-723-933-128 |
| 2 | 92 | 100.0 | 17 | 5 | US-10-737-290-172 |
| 3 | 92 | 100.0 | 18 | 4 | US-10-723-933-129 |
| 4 | 92 | 100.0 | 18 | 5 | US-10-471-348-44 |
| 5 | 92 | 100.0 | 18 | 6 | US-11-040-810-44 |
| 6 | 92 | 100.0 | 23 | 4 | US-10-723-933-130 |
| 7 | 92 | 100.0 | 23 | 5 | US-10-471-348-31 |
| 8 | 92 | 100.0 | 23 | 6 | US-11-040-810-31 |
| 9 | 92 | 100.0 | 24 | 4 | US-10-723-933-127 |
| 10 | 92 | 100.0 | 24 | 5 | US-10-471-348-33 |
| 11 | 92 | 100.0 | 24 | 6 | US-11-040-810-33 |
| 12 | 92 | 100.0 | 25 | 5 | US-10-471-348-22 |
| 13 | 92 | 100.0 | 25 | 6 | US-10-471-348-24 |
| 14 | 92 | 100.0 | 25 | 6 | US-11-040-810-22 |
| 15 | 92 | 100.0 | 25 | 6 | US-11-040-810-24 |
| 16 | 92 | 100.0 | 26 | 3 | US-09-902-517-1 |
| 17 | 92 | 100.0 | 26 | 4 | US-10-106-806-7 |
| 18 | 92 | 100.0 | 26 | 4 | US-10-402-021-1 |
| 19 | 92 | 100.0 | 26 | 4 | US-10-723-933-107 |
| 20 | 92 | 100.0 | 26 | 4 | US-10-723-933-124 |
| 21 | 92 | 100.0 | 26 | 5 | US-10-947-730-7 |
| 22 | 92 | 100.0 | 29 | 4 | US-10-723-933-106 |
| 23 | 92 | 100.0 | 29 | 4 | US-10-723-933-123 |
| 24 | 92 | 100.0 | 32 | 3 | US-09-752-724-4 |
| 25 | 92 | 100.0 | 32 | 3 | US-09-466-268B-6 |
| 26 | 92 | 100.0 | 32 | 3 | US-09-902-517-49 |
| 27 | 92 | 100.0 | 32 | 4 | US-10-106-806-6 |

| | | | | | | |
|-----|----|-------|-----|---|--------------------|--------------------|
| 28 | 92 | 100.0 | 32 | 4 | US-10-197-954-24 | Sequence 24, Appl |
| 29 | 92 | 100.0 | 32 | 4 | US-10-402-021-49 | Sequence 49, Appl |
| 30 | 92 | 100.0 | 32 | 4 | US-10-664-605-4 | Sequence 4, Appl |
| 31 | 92 | 100.0 | 32 | 4 | US-10-723-933-33 | Sequence 33, Appl |
| 32 | 92 | 100.0 | 32 | 4 | US-10-723-933-53 | Sequence 53, Appl |
| 33 | 92 | 100.0 | 32 | 4 | US-10-723-933-73 | Sequence 73, Appl |
| 34 | 92 | 100.0 | 32 | 4 | US-10-723-933-110 | Sequence 110, Appl |
| 35 | 92 | 100.0 | 32 | 4 | US-10-723-933-111 | Sequence 111, Appl |
| 36 | 92 | 100.0 | 32 | 5 | US-10-818-246-5 | Sequence 5, Appl |
| 37 | 92 | 100.0 | 32 | 5 | US-10-471-348-21 | Sequence 21, Appl |
| 38 | 92 | 100.0 | 32 | 5 | US-10-471-348-54 | Sequence 54, Appl |
| 39 | 92 | 100.0 | 32 | 5 | US-10-760-085-24 | Sequence 24, Appl |
| 40 | 92 | 100.0 | 32 | 5 | US-10-947-730-6 | Sequence 6, Appl |
| 41 | 92 | 100.0 | 32 | 5 | US-10-989-397-2 | Sequence 2, Appl |
| 42 | 92 | 100.0 | 32 | 5 | US-10-775-204-1802 | Sequence 1802, Ap |
| 43 | 92 | 100.0 | 32 | 6 | US-11-040-810-21 | Sequence 21, Appl |
| 44 | 92 | 100.0 | 32 | 6 | US-11-040-810-54 | Sequence 54, Appl |
| 45 | 92 | 100.0 | 32 | 6 | US-11-066-697-509 | Sequence 509, App |
| 46 | 92 | 100.0 | 32 | 6 | US-11-066-697-516 | Sequence 516, App |
| 47 | 92 | 100.0 | 33 | 3 | US-09-942-709-1 | Sequence 1, Appl |
| 48 | 92 | 100.0 | 33 | 4 | US-10-723-933-112 | Sequence 112, App |
| 49 | 92 | 100.0 | 33 | 5 | US-10-697-886-1 | Sequence 1, Appl |
| 50 | 92 | 100.0 | 33 | 5 | US-10-471-348-55 | Sequence 55, Appl |
| 51 | 92 | 100.0 | 33 | 6 | US-11-040-810-55 | Sequence 55, Appl |
| 52 | 92 | 100.0 | 36 | 4 | US-10-723-933-80 | Sequence 80, Appl |
| 53 | 92 | 100.0 | 41 | 3 | US-09-466-268B-1 | Sequence 1, Appl |
| 54 | 92 | 100.0 | 41 | 4 | US-10-106-806-1 | Sequence 1, Appl |
| 55 | 92 | 100.0 | 41 | 5 | US-10-947-730-1 | Sequence 1, Appl |
| 56 | 92 | 100.0 | 108 | 4 | US-10-419-059-1 | Sequence 1, Appl |
| 57 | 92 | 100.0 | 108 | 4 | US-10-300-733-1 | Sequence 1, Appl |
| 58 | 92 | 100.0 | 108 | 4 | US-10-359-051-1 | Sequence 1, Appl |
| 59 | 92 | 100.0 | 108 | 4 | US-10-645-874-1 | Sequence 1, Appl |
| 60 | 92 | 100.0 | 108 | 5 | US-10-714-078-1 | Sequence 1, Appl |
| 61 | 92 | 100.0 | 108 | 5 | US-10-603-891-1 | Sequence 1, Appl |
| 62 | 92 | 100.0 | 108 | 5 | US-10-827-919-1 | Sequence 1, Appl |
| 63 | 92 | 100.0 | 108 | 5 | US-10-938-760-1 | Sequence 1, Appl |
| 64 | 92 | 100.0 | 108 | 5 | US-10-952-275-1 | Sequence 1, Appl |
| 65 | 92 | 100.0 | 134 | 3 | US-09-902-517-45 | Sequence 45, Appl |
| 66 | 92 | 100.0 | 134 | 3 | US-09-902-517-48 | Sequence 48, Appl |
| 67 | 92 | 100.0 | 134 | 3 | US-09-508-435-2 | Sequence 2, Appl |
| 68 | 92 | 100.0 | 134 | 4 | US-10-419-059-2 | Sequence 2, Appl |
| 69 | 92 | 100.0 | 134 | 4 | US-10-402-021-45 | Sequence 45, Appl |
| 70 | 92 | 100.0 | 134 | 4 | US-10-402-021-48 | Sequence 48, Appl |
| 71 | 92 | 100.0 | 134 | 4 | US-10-645-874-2 | Sequence 2, Appl |
| 72 | 92 | 100.0 | 134 | 4 | US-10-723-933-22 | Sequence 22, Appl |
| 73 | 92 | 100.0 | 134 | 5 | US-10-714-078-2 | Sequence 2, Appl |
| 74 | 92 | 100.0 | 134 | 5 | US-10-603-891-2 | Sequence 2, Appl |
| 75 | 92 | 100.0 | 134 | 5 | US-10-827-919-2 | Sequence 2, Appl |
| 76 | 92 | 100.0 | 134 | 5 | US-10-952-275-2 | Sequence 2, Appl |
| 77 | 92 | 100.0 | 134 | 5 | US-10-775-204-1277 | Sequence 1277, Ap |
| 78 | 92 | 100.0 | 195 | 4 | US-10-723-933-115 | Sequence 115, App |
| 79 | 92 | 100.0 | 641 | 5 | US-10-775-204-1634 | Sequence 1634, Ap |
| 80 | 92 | 100.0 | 719 | 5 | US-10-775-204-1275 | Sequence 1275, Ap |
| 81 | 90 | 97.8 | 33 | 6 | US-11-066-697-515 | Sequence 515, App |
| 82 | 89 | 96.7 | 19 | 4 | US-10-723-933-84 | Sequence 84, Appl |
| 83 | 89 | 96.7 | 32 | 5 | US-10-471-348-48 | Sequence 48, Appl |
| 84 | 89 | 96.7 | 32 | 6 | US-10-471-348-49 | Sequence 49, Appl |
| 85 | 89 | 96.7 | 32 | 6 | US-11-040-810-48 | Sequence 48, Appl |
| 86 | 89 | 96.7 | 32 | 6 | US-11-040-810-49 | Sequence 49, Appl |
| 87 | 89 | 96.7 | 33 | 4 | US-10-723-933-108 | Sequence 108, App |
| 88 | 89 | 96.7 | 33 | 5 | US-10-471-348-50 | Sequence 50, Appl |
| 89 | 89 | 96.7 | 33 | 6 | US-11-040-810-50 | Sequence 50, Appl |
| 90 | 88 | 95.7 | 18 | 5 | US-10-471-348-41 | Sequence 41, Appl |
| 91 | 88 | 95.7 | 18 | 6 | US-11-040-810-41 | Sequence 41, Appl |
| 92 | 88 | 95.7 | 23 | 5 | US-10-471-348-28 | Sequence 28, Appl |
| 93 | 88 | 95.7 | 23 | 6 | US-11-040-810-28 | Sequence 28, Appl |
| 94 | 88 | 95.7 | 24 | 5 | US-10-471-348-30 | Sequence 30, Appl |
| 95 | 88 | 95.7 | 24 | 6 | US-11-040-810-30 | Sequence 30, Appl |
| 96 | 88 | 95.7 | 25 | 5 | US-10-471-348-25 | Sequence 25, Appl |
| 97 | 88 | 95.7 | 25 | 5 | US-10-471-348-26 | Sequence 26, Appl |
| 98 | 88 | 95.7 | 25 | 6 | US-11-040-810-25 | Sequence 25, Appl |
| 99 | 88 | 95.7 | 25 | 6 | US-11-040-810-26 | Sequence 26, Appl |
| 100 | 88 | 95.7 | 26 | 5 | US-10-471-348-27 | Sequence 27, Appl |

| | | | | | | | | | | | | | |
|-----|----|------|-----|---|-------------------|-------------------|-----|----|------|-----|---|-------------------|-------------------|
| 101 | 88 | 95.7 | 26 | 6 | US-11-040-810-27 | Sequence 27, Appl | 174 | 76 | 82.6 | 131 | 4 | US-10-402-021-43 | Sequence 43, Appl |
| 102 | 88 | 95.7 | 32 | 5 | US-10-471-348-45 | Sequence 45, Appl | 175 | 76 | 82.6 | 131 | 4 | US-10-402-021-46 | Sequence 46, Appl |
| 103 | 88 | 95.7 | 32 | 5 | US-10-471-348-46 | Sequence 46, Appl | 176 | 76 | 82.6 | 132 | 3 | US-09-902-517-47 | Sequence 47, Appl |
| 104 | 88 | 95.7 | 32 | 5 | US-10-471-348-57 | Sequence 57, Appl | 177 | 76 | 82.6 | 132 | 4 | US-10-402-021-47 | Sequence 47, Appl |
| 105 | 88 | 95.7 | 32 | 6 | US-11-040-810-45 | Sequence 45, Appl | 178 | 75 | 81.5 | 17 | 4 | US-10-664-605-10 | Sequence 10, Appl |
| 106 | 88 | 95.7 | 32 | 6 | US-11-040-810-46 | Sequence 46, Appl | 179 | 74 | 80.4 | 17 | 4 | US-10-664-605-40 | Sequence 40, Appl |
| 107 | 88 | 95.7 | 32 | 6 | US-11-040-810-57 | Sequence 57, Appl | 180 | 74 | 80.4 | 17 | 4 | US-10-664-605-67 | Sequence 67, Appl |
| 108 | 88 | 95.7 | 33 | 5 | US-10-471-348-47 | Sequence 47, Appl | 181 | 74 | 80.4 | 17 | 4 | US-10-664-605-69 | Sequence 69, Appl |
| 109 | 88 | 95.7 | 33 | 5 | US-11-040-810-47 | Sequence 47, Appl | 182 | 74 | 80.4 | 17 | 5 | US-10-664-605-43 | Sequence 43, Appl |
| 110 | 86 | 93.5 | 17 | 4 | US-10-723-933-1 | Sequence 1, Appl | 183 | 74 | 80.4 | 17 | 6 | US-11-040-810-43 | Sequence 43, Appl |
| 111 | 86 | 93.5 | 17 | 4 | US-10-723-933-79 | Sequence 79, Appl | 184 | 73 | 79.3 | 17 | 4 | US-10-327-514-19 | Sequence 19, Appl |
| 112 | 86 | 93.5 | 18 | 4 | US-10-723-933-21 | Sequence 21, Appl | 185 | 73 | 79.3 | 17 | 4 | US-10-664-605-2 | Sequence 2, Appl |
| 113 | 86 | 93.5 | 25 | 4 | US-10-723-933-18 | Sequence 18, Appl | 186 | 73 | 79.3 | 17 | 4 | US-10-664-605-66 | Sequence 66, Appl |
| 114 | 86 | 93.5 | 25 | 4 | US-10-723-933-126 | Sequence 126, App | 187 | 73 | 79.3 | 17 | 4 | US-10-664-605-19 | Sequence 19, Appl |
| 115 | 86 | 93.5 | 29 | 4 | US-10-723-933-116 | Sequence 116, App | 188 | 73 | 79.3 | 22 | 3 | US-09-466-268B-9 | Sequence 9, Appl |
| 116 | 86 | 93.5 | 32 | 4 | US-10-723-933-82 | Sequence 82, Appl | 189 | 73 | 79.3 | 22 | 3 | US-09-912-425-3 | Sequence 3, Appl |
| 117 | 86 | 93.5 | 32 | 4 | US-10-723-933-83 | Sequence 83, Appl | 190 | 73 | 79.3 | 22 | 3 | US-10-106-806-8 | Sequence 8, Appl |
| 118 | 86 | 93.5 | 32 | 4 | US-10-723-933-131 | Sequence 131, App | 191 | 73 | 79.3 | 22 | 4 | US-10-106-806-9 | Sequence 9, Appl |
| 119 | 86 | 93.5 | 32 | 5 | US-10-471-348-56 | Sequence 56, Appl | 192 | 73 | 79.3 | 22 | 4 | US-10-664-605-1 | Sequence 1, Appl |
| 120 | 86 | 93.5 | 32 | 6 | US-11-040-810-56 | Sequence 56, Appl | 193 | 73 | 79.3 | 22 | 4 | US-10-723-933-77 | Sequence 77, Appl |
| 121 | 86 | 93.5 | 32 | 4 | US-10-723-933-5 | Sequence 5, Appl | 194 | 73 | 79.3 | 22 | 5 | US-10-947-730-8 | Sequence 8, Appl |
| 122 | 86 | 93.5 | 37 | 4 | US-10-723-933-117 | Sequence 117, App | 195 | 73 | 79.3 | 22 | 5 | US-10-947-730-9 | Sequence 9, Appl |
| 123 | 85 | 92.4 | 23 | 5 | US-10-471-348-34 | Sequence 34, Appl | 196 | 73 | 79.3 | 22 | 5 | US-10-989-397-3 | Sequence 3, Appl |
| 124 | 85 | 92.4 | 23 | 5 | US-10-471-348-35 | Sequence 35, Appl | 197 | 73 | 79.3 | 22 | 6 | US-11-066-697-517 | Sequence 517, App |
| 125 | 85 | 92.4 | 23 | 6 | US-11-040-810-34 | Sequence 34, Appl | 198 | 73 | 79.3 | 22 | 6 | US-11-066-697-524 | Sequence 524, App |
| 126 | 85 | 92.4 | 23 | 6 | US-11-040-810-35 | Sequence 35, Appl | 199 | 73 | 79.3 | 23 | 6 | US-11-066-697-524 | Sequence 524, App |
| 127 | 85 | 92.4 | 24 | 5 | US-10-471-348-36 | Sequence 36, Appl | 200 | 73 | 79.3 | 27 | 4 | US-10-360-101-25 | Sequence 25, Appl |
| 128 | 85 | 92.4 | 24 | 6 | US-11-040-810-36 | Sequence 36, Appl | 201 | 73 | 79.3 | 27 | 4 | US-10-360-101-88 | Sequence 88, Appl |
| 129 | 85 | 92.4 | 32 | 5 | US-10-471-348-37 | Sequence 37, Appl | 202 | 73 | 79.3 | 27 | 5 | US-10-760-085-142 | Sequence 142, App |
| 130 | 85 | 92.4 | 32 | 5 | US-10-471-348-51 | Sequence 51, Appl | 203 | 73 | 79.3 | 27 | 6 | US-11-066-697-523 | Sequence 523, App |
| 131 | 85 | 92.4 | 32 | 6 | US-11-040-810-37 | Sequence 37, Appl | 204 | 73 | 79.3 | 27 | 6 | US-11-066-697-523 | Sequence 523, App |
| 132 | 85 | 92.4 | 32 | 6 | US-11-040-810-51 | Sequence 51, Appl | 205 | 73 | 79.3 | 29 | 3 | US-09-752-724-8 | Sequence 8, Appl |
| 133 | 85 | 92.4 | 32 | 6 | US-11-040-810-52 | Sequence 52, Appl | 206 | 73 | 79.3 | 29 | 3 | US-11-066-697-465 | Sequence 465, App |
| 134 | 85 | 92.4 | 33 | 5 | US-10-471-348-38 | Sequence 38, Appl | 207 | 73 | 79.3 | 37 | 3 | US-09-466-268B-2 | Sequence 2, Appl |
| 135 | 85 | 92.4 | 33 | 5 | US-10-471-348-53 | Sequence 53, Appl | 208 | 73 | 79.3 | 37 | 3 | US-10-106-806-2 | Sequence 2, Appl |
| 136 | 85 | 92.4 | 33 | 5 | US-10-471-348-58 | Sequence 58, Appl | 209 | 73 | 79.3 | 37 | 5 | US-10-947-730-2 | Sequence 2, Appl |
| 137 | 85 | 92.4 | 33 | 6 | US-11-040-810-38 | Sequence 38, Appl | 210 | 73 | 79.3 | 37 | 5 | US-10-360-101-87 | Sequence 87, Appl |
| 138 | 85 | 92.4 | 33 | 6 | US-11-040-810-53 | Sequence 53, Appl | 211 | 73 | 79.3 | 53 | 6 | US-11-066-697-519 | Sequence 519, App |
| 139 | 83 | 90.2 | 17 | 6 | US-10-471-348-42 | Sequence 42, Appl | 212 | 73 | 79.3 | 53 | 6 | US-11-066-697-520 | Sequence 520, App |
| 140 | 83 | 90.2 | 17 | 6 | US-11-040-810-42 | Sequence 42, Appl | 213 | 73 | 79.3 | 103 | 3 | US-09-912-425-2 | Sequence 2, Appl |
| 141 | 83 | 90.2 | 23 | 5 | US-10-471-348-32 | Sequence 32, Appl | 214 | 73 | 79.3 | 126 | 3 | US-09-912-425-1 | Sequence 1, Appl |
| 142 | 83 | 90.2 | 23 | 6 | US-11-040-810-32 | Sequence 32, Appl | 215 | 73 | 79.3 | 126 | 3 | US-10-419-059-5 | Sequence 5, Appl |
| 143 | 83 | 90.2 | 23 | 6 | US-09-466-268B-7 | Sequence 7, Appl | 216 | 73 | 79.3 | 126 | 4 | US-10-645-874-5 | Sequence 5, Appl |
| 144 | 81 | 88.0 | 32 | 4 | US-10-360-101-86 | Sequence 86, Appl | 217 | 73 | 79.3 | 126 | 5 | US-10-827-913-5 | Sequence 5, Appl |
| 145 | 81 | 88.0 | 32 | 4 | US-10-723-933-132 | Sequence 132, App | 218 | 73 | 79.3 | 126 | 5 | US-10-737-318-35 | Sequence 35, Appl |
| 146 | 79 | 85.9 | 17 | 5 | US-10-471-348-39 | Sequence 39, Appl | 219 | 73 | 79.3 | 126 | 5 | US-10-737-318-38 | Sequence 38, Appl |
| 147 | 79 | 85.9 | 17 | 6 | US-11-040-810-39 | Sequence 39, Appl | 220 | 73 | 79.3 | 152 | 5 | US-10-982-514-16 | Sequence 16, Appl |
| 148 | 79 | 85.9 | 23 | 5 | US-10-471-348-29 | Sequence 29, Appl | 221 | 73 | 79.3 | 157 | 5 | US-10-982-514-17 | Sequence 17, Appl |
| 149 | 79 | 85.9 | 23 | 6 | US-11-040-810-29 | Sequence 29, Appl | 222 | 72 | 78.3 | 17 | 3 | US-09-902-517-5 | Sequence 5, Appl |
| 150 | 78 | 84.8 | 17 | 4 | US-10-664-605-68 | Sequence 68, Appl | 223 | 72 | 78.3 | 17 | 4 | US-10-402-021-5 | Sequence 5, Appl |
| 151 | 76 | 82.6 | 17 | 3 | US-09-902-517-15 | Sequence 15, Appl | 224 | 72 | 78.3 | 17 | 4 | US-10-664-605-41 | Sequence 41, Appl |
| 152 | 76 | 82.6 | 17 | 4 | US-10-402-021-15 | Sequence 15, Appl | 225 | 72 | 78.3 | 17 | 4 | US-10-664-605-42 | Sequence 42, Appl |
| 153 | 76 | 82.6 | 20 | 3 | US-09-902-517-34 | Sequence 34, Appl | 226 | 72 | 78.3 | 17 | 4 | US-10-664-605-46 | Sequence 46, Appl |
| 154 | 76 | 82.6 | 20 | 4 | US-10-402-021-34 | Sequence 34, Appl | 227 | 72 | 78.3 | 17 | 4 | US-10-664-605-47 | Sequence 47, Appl |
| 155 | 76 | 82.6 | 26 | 3 | US-09-902-517-3 | Sequence 3, Appl | 228 | 72 | 78.3 | 17 | 4 | US-10-664-605-52 | Sequence 52, Appl |
| 156 | 76 | 82.6 | 26 | 4 | US-10-402-021-3 | Sequence 3, Appl | 229 | 72 | 78.3 | 22 | 3 | US-09-752-724-10 | Sequence 10, Appl |
| 157 | 76 | 82.6 | 26 | 4 | US-10-723-933-35 | Sequence 35, Appl | 230 | 72 | 78.3 | 22 | 6 | US-11-066-697-508 | Sequence 508, App |
| 158 | 76 | 82.6 | 26 | 4 | US-10-723-933-51 | Sequence 51, Appl | 231 | 72 | 78.3 | 22 | 6 | US-11-066-697-518 | Sequence 518, App |
| 159 | 76 | 82.6 | 26 | 6 | US-09-752-724-6 | Sequence 6, Appl | 232 | 72 | 78.3 | 27 | 6 | US-11-066-697-482 | Sequence 482, App |
| 160 | 76 | 82.6 | 32 | 3 | US-09-752-724-6 | Sequence 75, Appl | 233 | 72 | 78.3 | 27 | 6 | US-11-066-697-491 | Sequence 491, App |
| 161 | 76 | 82.6 | 32 | 4 | US-10-723-933-137 | Sequence 137, App | 234 | 72 | 78.3 | 27 | 6 | US-11-066-697-501 | Sequence 501, App |
| 162 | 76 | 82.6 | 32 | 6 | US-11-066-697-507 | Sequence 507, App | 235 | 71 | 77.2 | 17 | 3 | US-09-027-777B-1 | Sequence 1, Appl |
| 163 | 76 | 82.6 | 32 | 6 | US-11-066-697-512 | Sequence 512, App | 236 | 71 | 77.2 | 17 | 4 | US-10-664-605-51 | Sequence 51, Appl |
| 164 | 76 | 82.6 | 32 | 6 | US-10-902-517-50 | Sequence 50, Appl | 237 | 71 | 77.2 | 17 | 4 | US-10-664-605-62 | Sequence 62, Appl |
| 165 | 76 | 82.6 | 41 | 3 | US-09-902-517-50 | Sequence 30, Appl | 238 | 71 | 77.2 | 17 | 6 | US-11-066-697-474 | Sequence 474, App |
| 166 | 76 | 82.6 | 106 | 3 | US-09-902-517-30 | Sequence 30, Appl | 239 | 71 | 77.2 | 17 | 6 | US-11-066-697-474 | Sequence 474, App |
| 167 | 76 | 82.6 | 131 | 3 | US-10-402-021-30 | Sequence 39, Appl | 240 | 71 | 77.2 | 20 | 3 | US-09-902-517-32 | Sequence 32, Appl |
| 168 | 76 | 82.6 | 131 | 3 | US-09-902-517-39 | Sequence 41, Appl | 241 | 71 | 77.2 | 20 | 4 | US-10-402-021-32 | Sequence 32, Appl |
| 169 | 76 | 82.6 | 131 | 3 | US-09-902-517-41 | Sequence 43, Appl | 242 | 71 | 77.2 | 22 | 3 | US-09-752-724-3 | Sequence 3, Appl |
| 170 | 76 | 82.6 | 131 | 3 | US-09-902-517-43 | Sequence 46, Appl | 243 | 71 | 77.2 | 22 | 5 | US-10-471-348-17 | Sequence 17, Appl |
| 171 | 76 | 82.6 | 131 | 3 | US-09-902-517-46 | Sequence 39, Appl | 244 | 71 | 77.2 | 22 | 6 | US-11-040-810-17 | Sequence 17, Appl |
| 172 | 76 | 82.6 | 131 | 4 | US-10-402-021-39 | Sequence 41, Appl | 245 | 71 | 77.2 | 22 | 6 | US-11-066-697-475 | Sequence 475, App |
| 173 | 76 | 82.6 | 131 | 4 | US-10-402-021-41 | Sequence 41, Appl | 246 | 71 | 77.2 | 23 | 6 | US-11-066-697-481 | Sequence 481, App |

| | | | | | | | | | | | | | |
|-----|----|------|-----|---|---------------------|-------------------|-----|----|------|-----|---|-------------------|-------------------|
| 247 | 71 | 77.2 | 24 | 5 | US-10-471-348-15 | Sequence 15, Appl | 320 | 70 | 76.1 | 17 | 4 | US-10-723-933-109 | Sequence 109, App |
| 248 | 71 | 77.2 | 24 | 5 | US-10-471-348-16 | Sequence 16, Appl | 321 | 70 | 76.1 | 17 | 5 | US-10-471-348-40 | Sequence 40, Appl |
| 249 | 71 | 77.2 | 24 | 6 | US-11-040-810-15 | Sequence 15, Appl | 322 | 70 | 76.1 | 17 | 6 | US-11-040-810-40 | Sequence 40, Appl |
| 250 | 71 | 77.2 | 24 | 6 | US-11-040-810-16 | Sequence 16, Appl | 323 | 70 | 76.1 | 28 | 5 | US-10-471-348-6 | Sequence 6, Appl |
| 251 | 71 | 77.2 | 24 | 6 | US-11-066-697-473 | Sequence 473, App | 324 | 70 | 76.1 | 28 | 6 | US-11-040-810-6 | Sequence 6, Appl |
| 252 | 71 | 77.2 | 25 | 3 | US-09-502-517-2 | Sequence 2, Appl | 325 | 70 | 76.1 | 37 | 4 | US-10-723-933-136 | Sequence 136, App |
| 253 | 71 | 77.2 | 25 | 4 | US-10-402-021-2 | Sequence 2, Appl | 326 | 69 | 75.0 | 17 | 4 | US-10-664-605-35 | Sequence 35, Appl |
| 254 | 71 | 77.2 | 25 | 4 | US-10-156-527-16 | Sequence 16, Appl | 327 | 69 | 75.0 | 17 | 4 | US-10-664-605-50 | Sequence 50, Appl |
| 255 | 71 | 77.2 | 26 | 6 | US-11-066-697-480 | Sequence 480, App | 328 | 69 | 75.0 | 17 | 4 | US-10-664-605-55 | Sequence 55, Appl |
| 256 | 71 | 77.2 | 26 | 6 | US-11-066-697-479 | Sequence 479, App | 329 | 69 | 75.0 | 196 | 4 | US-10-201-288-2 | Sequence 2, Appl |
| 257 | 71 | 77.2 | 28 | 3 | US-09-752-724-1 | Sequence 1, Appl | 330 | 69 | 75.0 | 196 | 5 | US-10-919-325-2 | Sequence 2, Appl |
| 258 | 71 | 77.2 | 28 | 3 | US-09-466-268B-5 | Sequence 5, Appl | 331 | 69 | 75.0 | 265 | 5 | US-10-471-931-2 | Sequence 2, Appl |
| 259 | 71 | 77.2 | 28 | 4 | US-10-106-806-5 | Sequence 5, Appl | 332 | 68 | 73.9 | 17 | 4 | US-10-664-605-9 | Sequence 9, Appl |
| 260 | 71 | 77.2 | 28 | 4 | US-10-197-954-14 | Sequence 14, Appl | 333 | 68 | 73.9 | 17 | 4 | US-10-664-605-31 | Sequence 31, Appl |
| 261 | 71 | 77.2 | 28 | 4 | US-10-279-061-1 | Sequence 1, Appl | 334 | 68 | 73.9 | 17 | 4 | US-10-664-605-37 | Sequence 37, Appl |
| 262 | 71 | 77.2 | 28 | 4 | US-10-279-061-76 | Sequence 76, Appl | 335 | 68 | 73.9 | 17 | 4 | US-10-664-605-48 | Sequence 48, Appl |
| 263 | 71 | 77.2 | 28 | 4 | US-10-360-101-84 | Sequence 84, Appl | 336 | 68 | 73.9 | 17 | 4 | US-10-664-605-53 | Sequence 53, Appl |
| 264 | 71 | 77.2 | 28 | 5 | US-10-471-348-1 | Sequence 1, Appl | 337 | 68 | 73.9 | 17 | 4 | US-10-664-605-63 | Sequence 63, Appl |
| 265 | 71 | 77.2 | 28 | 5 | US-10-471-348-2 | Sequence 2, Appl | 338 | 68 | 73.9 | 17 | 4 | US-10-664-605-70 | Sequence 70, Appl |
| 266 | 71 | 77.2 | 28 | 5 | US-10-471-348-3 | Sequence 3, Appl | 339 | 68 | 73.9 | 22 | 3 | US-09-752-724-11 | Sequence 11, Appl |
| 267 | 71 | 77.2 | 28 | 5 | US-10-471-348-4 | Sequence 4, Appl | 340 | 68 | 73.9 | 28 | 5 | US-10-471-348-12 | Sequence 12, Appl |
| 268 | 71 | 77.2 | 28 | 5 | US-10-718-071-20 | Sequence 20, Appl | 341 | 68 | 73.9 | 28 | 6 | US-11-040-810-12 | Sequence 12, Appl |
| 269 | 71 | 77.2 | 28 | 5 | US-10-718-071-41 | Sequence 41, Appl | 342 | 67 | 72.8 | 17 | 4 | US-10-327-514-17 | Sequence 17, Appl |
| 270 | 71 | 77.2 | 28 | 5 | US-10-760-085-14 | Sequence 14, Appl | 343 | 67 | 72.8 | 17 | 4 | US-10-664-605-8 | Sequence 8, Appl |
| 271 | 71 | 77.2 | 28 | 5 | US-10-947-730-5 | Sequence 5, Appl | 344 | 67 | 72.8 | 17 | 4 | US-10-664-605-25 | Sequence 25, Appl |
| 272 | 71 | 77.2 | 28 | 5 | US-10-989-397-1 | Sequence 1, Appl | 345 | 67 | 72.8 | 17 | 4 | US-10-664-605-26 | Sequence 26, Appl |
| 273 | 71 | 77.2 | 28 | 5 | US-10-775-204-2207 | Sequence 2207, Ap | 346 | 67 | 72.8 | 17 | 4 | US-10-664-605-28 | Sequence 28, Appl |
| 274 | 71 | 77.2 | 28 | 6 | US-11-040-810-1 | Sequence 1, Appl | 347 | 67 | 72.8 | 17 | 4 | US-10-664-605-29 | Sequence 29, Appl |
| 275 | 71 | 77.2 | 28 | 6 | US-11-040-810-2 | Sequence 2, Appl | 348 | 67 | 72.8 | 17 | 4 | US-10-664-605-30 | Sequence 30, Appl |
| 276 | 71 | 77.2 | 28 | 6 | US-11-040-810-3 | Sequence 3, Appl | 349 | 67 | 72.8 | 17 | 4 | US-10-664-605-36 | Sequence 36, Appl |
| 277 | 71 | 77.2 | 28 | 6 | US-11-040-810-4 | Sequence 4, Appl | 350 | 67 | 72.8 | 17 | 4 | US-10-664-605-44 | Sequence 44, Appl |
| 278 | 71 | 77.2 | 28 | 6 | US-11-066-697-476 | Sequence 476, App | 351 | 67 | 72.8 | 17 | 4 | US-10-664-605-58 | Sequence 58, Appl |
| 279 | 71 | 77.2 | 28 | 6 | US-11-066-697-495 | Sequence 495, App | 352 | 67 | 72.8 | 17 | 4 | US-10-664-605-61 | Sequence 61, Appl |
| 280 | 71 | 77.2 | 29 | 3 | US-09-772-607-9 | Sequence 9, Appl | 353 | 67 | 72.8 | 17 | 4 | US-10-664-605-71 | Sequence 71, Appl |
| 281 | 71 | 77.2 | 29 | 3 | US-09-772-607-9 | Sequence 9, Appl | 354 | 67 | 72.8 | 17 | 5 | US-10-499-762-17 | Sequence 17, Appl |
| 282 | 71 | 77.2 | 29 | 4 | US-10-664-605-3 | Sequence 3, Appl | 355 | 67 | 72.8 | 21 | 6 | US-11-066-697-483 | Sequence 483, App |
| 283 | 71 | 77.2 | 29 | 5 | US-10-471-348-5 | Sequence 5, Appl | 356 | 67 | 72.8 | 22 | 5 | US-10-471-348-13 | Sequence 13, Appl |
| 284 | 71 | 77.2 | 29 | 6 | US-11-040-810-5 | Sequence 5, Appl | 357 | 67 | 72.8 | 22 | 5 | US-10-471-348-23 | Sequence 23, Appl |
| 285 | 71 | 77.2 | 31 | 3 | US-09-964-201A-22 | Sequence 22, Appl | 358 | 67 | 72.8 | 22 | 6 | US-11-040-810-13 | Sequence 13, Appl |
| 286 | 71 | 77.2 | 31 | 4 | US-10-681-389-22 | Sequence 22, Appl | 359 | 67 | 72.8 | 23 | 6 | US-11-040-810-23 | Sequence 23, Appl |
| 287 | 71 | 77.2 | 31 | 4 | US-10-681-388-22 | Sequence 22, Appl | 360 | 67 | 72.8 | 23 | 6 | US-11-066-697-484 | Sequence 484, App |
| 288 | 71 | 77.2 | 32 | 3 | US-09-027-777B-5 | Sequence 5, Appl | 361 | 67 | 72.8 | 24 | 6 | US-11-066-697-485 | Sequence 485, App |
| 289 | 71 | 77.2 | 32 | 3 | US-09-027-777B-10 | Sequence 10, Appl | 362 | 67 | 72.8 | 24 | 6 | US-11-066-697-487 | Sequence 487, App |
| 290 | 71 | 77.2 | 32 | 3 | US-09-027-777B-11 | Sequence 11, Appl | 363 | 67 | 72.8 | 24 | 6 | US-11-066-697-502 | Sequence 502, App |
| 291 | 71 | 77.2 | 32 | 4 | US-10-723-933-74 | Sequence 74, Appl | 364 | 67 | 72.8 | 25 | 6 | US-11-066-697-505 | Sequence 505, App |
| 292 | 71 | 77.2 | 32 | 5 | US-10-471-348-8 | Sequence 8, Appl | 365 | 67 | 72.8 | 25 | 6 | US-11-066-697-488 | Sequence 488, App |
| 293 | 71 | 77.2 | 32 | 5 | US-10-471-348-9 | Sequence 9, Appl | 366 | 67 | 72.8 | 26 | 6 | US-10-723-933-113 | Sequence 113, App |
| 294 | 71 | 77.2 | 32 | 5 | US-10-471-348-10 | Sequence 10, Appl | 367 | 67 | 72.8 | 26 | 6 | US-11-066-697-478 | Sequence 478, App |
| 295 | 71 | 77.2 | 32 | 5 | US-10-989-397-4 | Sequence 4, Appl | 368 | 67 | 72.8 | 28 | 3 | US-09-752-724-2 | Sequence 2, Appl |
| 296 | 71 | 77.2 | 32 | 5 | US-10-775-204-2203 | Sequence 2203, Ap | 369 | 67 | 72.8 | 28 | 6 | US-11-066-697-486 | Sequence 486, App |
| 297 | 71 | 77.2 | 32 | 6 | US-11-040-810-8 | Sequence 8, Appl | 370 | 67 | 72.8 | 32 | 6 | US-11-066-697-490 | Sequence 490, App |
| 298 | 71 | 77.2 | 32 | 6 | US-11-040-810-9 | Sequence 9, Appl | 371 | 66 | 71.7 | 17 | 4 | US-10-664-605-32 | Sequence 32, Appl |
| 299 | 71 | 77.2 | 32 | 6 | US-11-040-810-10 | Sequence 10, Appl | 372 | 66 | 71.7 | 17 | 4 | US-10-664-605-33 | Sequence 33, Appl |
| 300 | 71 | 77.2 | 32 | 6 | US-11-066-697-504 | Sequence 504, App | 373 | 66 | 71.7 | 17 | 4 | US-10-664-605-43 | Sequence 43, Appl |
| 301 | 71 | 77.2 | 37 | 3 | US-09-027-777B-4 | Sequence 4, Appl | 374 | 66 | 71.7 | 20 | 6 | US-11-066-697-469 | Sequence 469, App |
| 302 | 71 | 77.2 | 42 | 4 | US-10-279-061-84 | Sequence 84, Appl | 375 | 66 | 71.7 | 21 | 6 | US-11-066-697-470 | Sequence 470, App |
| 303 | 71 | 77.2 | 56 | 6 | US-11-066-697-489 | Sequence 489, App | 376 | 66 | 71.7 | 24 | 3 | US-09-752-724-5 | Sequence 5, Appl |
| 304 | 71 | 77.2 | 126 | 4 | US-10-419-059-3 | Sequence 3, Appl | 377 | 66 | 71.7 | 24 | 6 | US-11-066-697-468 | Sequence 468, App |
| 305 | 71 | 77.2 | 126 | 4 | US-10-645-874-3 | Sequence 3, Appl | 378 | 66 | 71.7 | 30 | 6 | US-11-066-697-471 | Sequence 471, App |
| 306 | 71 | 77.2 | 126 | 5 | US-10-827-919-3 | Sequence 3, Appl | 379 | 66 | 71.7 | 30 | 6 | US-11-066-697-472 | Sequence 472, App |
| 307 | 71 | 77.2 | 131 | 4 | US-10-279-061-88 | Sequence 88, Appl | 380 | 65 | 70.7 | 17 | 4 | US-10-664-605-6 | Sequence 6, Appl |
| 308 | 71 | 77.2 | 151 | 4 | US-10-419-059-4 | Sequence 4, Appl | 381 | 65 | 70.7 | 17 | 4 | US-10-664-605-7 | Sequence 7, Appl |
| 309 | 71 | 77.2 | 151 | 4 | US-10-645-874-4 | Sequence 4, Appl | 382 | 65 | 70.7 | 17 | 4 | US-10-664-605-34 | Sequence 34, Appl |
| 310 | 71 | 77.2 | 151 | 5 | US-10-827-919-4 | Sequence 4, Appl | 383 | 65 | 70.7 | 17 | 4 | US-10-664-605-64 | Sequence 64, Appl |
| 311 | 71 | 77.2 | 153 | 4 | US-10-201-288-17 | Sequence 17, Appl | 384 | 65 | 70.7 | 17 | 4 | US-10-723-933-78 | Sequence 78, Appl |
| 312 | 71 | 77.2 | 153 | 5 | US-10-919-325-6 | Sequence 6, Appl | 385 | 65 | 70.7 | 28 | 4 | US-10-723-933-78 | Sequence 78, Appl |
| 313 | 71 | 77.2 | 161 | 3 | US-09-864-408A-4402 | Sequence 4402, Ap | 386 | 65 | 70.7 | 28 | 5 | US-11-040-810-7 | Sequence 7, Appl |
| 314 | 70 | 76.1 | 17 | 4 | US-10-664-605-45 | Sequence 45, Appl | 387 | 65 | 70.7 | 28 | 6 | US-10-664-605-7 | Sequence 7, Appl |
| 315 | 70 | 76.1 | 17 | 4 | US-10-664-605-49 | Sequence 49, Appl | 388 | 65 | 70.7 | 35 | 6 | US-11-066-697-506 | Sequence 506, App |
| 316 | 70 | 76.1 | 17 | 4 | US-10-664-605-54 | Sequence 54, Appl | 389 | 65 | 70.7 | 45 | 6 | US-11-066-697-510 | Sequence 510, App |
| 317 | 70 | 76.1 | 17 | 4 | US-10-664-605-56 | Sequence 56, Appl | 390 | 64 | 69.6 | 17 | 4 | US-10-664-605-38 | Sequence 38, Appl |
| 318 | 70 | 76.1 | 17 | 4 | US-10-664-605-57 | Sequence 57, Appl | 391 | 64 | 69.6 | 17 | 4 | US-10-664-605-39 | Sequence 39, Appl |
| 319 | 70 | 76.1 | 17 | 4 | US-10-723-933-2 | Sequence 2, Appl | 392 | 64 | 69.6 | 21 | 3 | US-09-466-268B-8 | Sequence 8, Appl |

| | | | | | | | | | | | | | |
|-----|------|------|------|---|----------------------|--------------------|-----|------|------|------|---|-----------------------|-------------------|
| 393 | 64 | 69.6 | 28 | 5 | US-10-471-348-19 | Sequence 19, Appl | 466 | 40 | 43.5 | 104 | 4 | US-10-425-115-212795 | Sequence 212795, |
| 394 | 64 | 69.6 | 28 | 5 | US-10-471-348-20 | Sequence 20, Appl | 467 | 40 | 43.5 | 105 | 4 | US-10-437-963-111441 | Sequence 111441, |
| 395 | 64 | 69.6 | 28 | 6 | US-11-040-810-19 | Sequence 20, Appl | 468 | 40 | 43.5 | 106 | 4 | US-10-437-963-147758 | Sequence 147758, |
| 396 | 64 | 69.6 | 28 | 6 | US-11-040-810-20 | Sequence 20, Appl | 469 | 40 | 43.5 | 117 | 4 | US-10-437-963-169662 | Sequence 169662, |
| 397 | 63 | 68.5 | 17 | 4 | US-10-327-514-18 | Sequence 19, Appl | 470 | 40 | 43.5 | 153 | 4 | US-10-424-599-178803 | Sequence 178803, |
| 398 | 63 | 68.5 | 17 | 4 | US-10-664-605-59 | Sequence 59, Appl | 471 | 40 | 43.5 | 154 | 4 | US-10-424-599-178803 | Sequence 178803, |
| 399 | 63 | 68.5 | 17 | 5 | US-10-499-762-18 | Sequence 18, Appl | 472 | 40 | 43.5 | 160 | 4 | US-10-425-115-197466 | Sequence 197466, |
| 400 | 63 | 68.5 | 23 | 4 | US-10-106-806-11 | Sequence 11, Appl | 473 | 40 | 43.5 | 230 | 4 | US-10-424-599-190579 | Sequence 190579, |
| 401 | 63 | 68.5 | 23 | 5 | US-10-947-730-11 | Sequence 11, Appl | 474 | 40 | 43.5 | 240 | 4 | US-10-425-115-351233 | Sequence 351233, |
| 402 | 63 | 68.5 | 32 | 6 | US-11-066-697-513 | Sequence 513, Appl | 475 | 40 | 43.5 | 264 | 4 | US-10-437-963-111894 | Sequence 111894, |
| 403 | 63 | 68.5 | 38 | 3 | US-09-466-2688-10 | Sequence 10, Appl | 476 | 40 | 43.5 | 264 | 4 | US-10-369-493-4581 | Sequence 4581, Ap |
| 404 | 63 | 68.5 | 38 | 4 | US-10-106-806-10 | Sequence 10, Appl | 477 | 40 | 43.5 | 396 | 4 | US-10-156-761-8126 | Sequence 8126, Ap |
| 405 | 63 | 68.5 | 38 | 5 | US-10-947-730-10 | Sequence 10, Appl | 478 | 40 | 43.5 | 399 | 4 | US-10-695-499-64 | Sequence 64, Appl |
| 406 | 63 | 68.5 | 45 | 3 | US-09-752-724-7 | Sequence 7, Appl | 479 | 40 | 43.5 | 593 | 4 | US-10-425-115-351233 | Sequence 2186, Ap |
| 407 | 63 | 68.5 | 45 | 6 | US-11-066-697-514 | Sequence 514, Appl | 480 | 40 | 43.5 | 683 | 4 | US-10-369-493-4581 | Sequence 13725, A |
| 408 | 62 | 67.4 | 22 | 6 | US-10-471-348-18 | Sequence 18, Appl | 481 | 40 | 43.5 | 788 | 6 | US-11-097-143-13725 | Sequence 2, Appl |
| 409 | 62 | 67.4 | 22 | 6 | US-11-040-810-18 | Sequence 18, Appl | 482 | 40 | 43.5 | 1000 | 5 | US-10-745-237-2 | Sequence 8, Appl |
| 410 | 61 | 66.3 | 28 | 4 | US-10-723-933-41 | Sequence 41, Appl | 483 | 40 | 43.5 | 1001 | 5 | US-10-745-237-6 | Sequence 2, Appl |
| 411 | 61 | 66.3 | 28 | 5 | US-10-471-348-11 | Sequence 11, Appl | 484 | 40 | 43.5 | 1287 | 6 | US-11-097-143-12003 | Sequence 12003, A |
| 412 | 61 | 66.3 | 28 | 6 | US-11-040-810-11 | Sequence 11, Appl | 485 | 40 | 43.5 | 2703 | 4 | US-10-282-122A-66108 | Sequence 66108, A |
| 413 | 59 | 64.1 | 17 | 4 | US-10-664-605-27 | Sequence 27, Appl | 486 | 40 | 43.5 | 2799 | 4 | US-10-282-122A-65564 | Sequence 65564, A |
| 414 | 58 | 63.0 | 22 | 6 | US-10-471-348-14 | Sequence 14, Appl | 487 | 40 | 43.5 | 4870 | 4 | US-10-764-425-144 | Sequence 144, App |
| 415 | 58 | 63.0 | 22 | 6 | US-11-040-810-14 | Sequence 14, Appl | 488 | 40 | 43.5 | 4899 | 5 | US-10-450-763-42673 | Sequence 42673, A |
| 416 | 58 | 63.0 | 28 | 4 | US-10-343-654-16 | Sequence 16, Appl | 489 | 40 | 43.5 | 4934 | 5 | US-10-450-763-53705 | Sequence 53705, A |
| 417 | 58 | 63.0 | 28 | 4 | US-10-723-933-135 | Sequence 135, Appl | 490 | 40 | 43.5 | 73 | 4 | US-10-424-599-228439 | Sequence 228439, |
| 418 | 58 | 63.0 | 85 | 4 | US-10-425-115-348455 | Sequence 348455, | 491 | 39.5 | 42.9 | 15 | 4 | US-10-664-605-11 | Sequence 69069, A |
| 419 | 57 | 62.0 | 17 | 4 | US-10-664-605-24 | Sequence 24, Appl | 492 | 39.5 | 42.9 | 61 | 4 | US-10-425-115-130774 | Sequence 11, Appl |
| 420 | 57 | 62.0 | 38 | 4 | US-10-723-933-76 | Sequence 76, Appl | 493 | 39.5 | 42.9 | 82 | 4 | US-10-425-115-207196 | Sequence 190774, |
| 421 | 56.5 | 61.4 | 22 | 4 | US-10-279-061-74 | Sequence 74, Appl | 494 | 39.5 | 42.9 | 91 | 4 | US-10-425-115-349683 | Sequence 207196, |
| 422 | 54 | 58.7 | 22 | 3 | US-09-466-2688-11 | Sequence 11, Appl | 495 | 39.5 | 42.9 | 124 | 5 | US-10-684-422-126 | Sequence 349683, |
| 423 | 52 | 56.5 | 18 | 3 | US-09-027-777B-9 | Sequence 9, Appl | 496 | 39.5 | 42.9 | 171 | 4 | US-10-437-963-102867 | Sequence 126, App |
| 424 | 52 | 56.5 | 21 | 6 | US-11-066-697-496 | Sequence 496, Appl | 497 | 39.5 | 42.9 | 246 | 4 | US-10-369-493-14229 | Sequence 102867, |
| 425 | 50 | 54.3 | 17 | 4 | US-10-664-605-5 | Sequence 5, Appl | 498 | 39 | 42.4 | 262 | 5 | US-10-822-613-37 | Sequence 14229, A |
| 426 | 49 | 53.3 | 17 | 6 | US-11-066-697-494 | Sequence 494, Appl | 499 | 39 | 42.4 | 444 | 4 | US-10-369-493-6362 | Sequence 37, Appl |
| 427 | 48 | 52.2 | 14 | 4 | US-10-664-605-14 | Sequence 14, Appl | 500 | 39 | 42.4 | 597 | 3 | US-09-793-306-146 | Sequence 146, App |
| 428 | 46 | 50.0 | 14 | 4 | US-10-664-605-15 | Sequence 15, Appl | 501 | 39 | 42.4 | 611 | 4 | US-10-1282-122A-51459 | Sequence 51459, A |
| 429 | 46 | 50.0 | 23 | 4 | US-10-723-933-114 | Sequence 114, Appl | 502 | 39 | 42.4 | 652 | 5 | US-10-450-763-60420 | Sequence 60420, A |
| 430 | 46 | 50.0 | 88 | 4 | US-10-424-599-185849 | Sequence 185849, | 503 | 39 | 42.4 | 715 | 4 | US-10-437-963-119399 | Sequence 119399, |
| 431 | 45 | 48.9 | 12 | 4 | US-10-664-605-21 | Sequence 21, Appl | 504 | 39 | 42.4 | 743 | 5 | US-10-450-763-39680 | Sequence 39680, A |
| 432 | 45 | 48.9 | 13 | 4 | US-10-664-605-16 | Sequence 16, Appl | 505 | 39 | 42.4 | 778 | 4 | US-10-450-763-59864 | Sequence 59864, A |
| 433 | 45 | 48.9 | 13 | 4 | US-10-664-605-18 | Sequence 18, Appl | 506 | 39 | 42.4 | 826 | 4 | US-10-437-963-140256 | Sequence 140256, |
| 434 | 43 | 46.7 | 11 | 4 | US-10-664-605-22 | Sequence 22, Appl | 507 | 39 | 42.4 | 1040 | 4 | US-10-450-763-141130 | Sequence 41130, A |
| 435 | 43 | 46.7 | 12 | 3 | US-09-027-777B-7 | Sequence 7, Appl | 508 | 39 | 42.4 | 1275 | 4 | US-10-437-963-136783 | Sequence 136783, |
| 436 | 43 | 46.7 | 93 | 4 | US-10-425-115-323761 | Sequence 323761, | 509 | 39 | 42.4 | 1341 | 4 | US-10-694-711-8 | Sequence 8, Appl |
| 437 | 43 | 46.7 | 93 | 4 | US-10-425-115-220696 | Sequence 220696, | 510 | 39 | 42.4 | 1466 | 5 | US-10-153-668-176 | Sequence 176, App |
| 438 | 43 | 46.7 | 226 | 4 | US-10-424-599-203023 | Sequence 203023, | 511 | 39 | 42.4 | 1475 | 4 | US-10-153-668-466 | Sequence 466, App |
| 439 | 43 | 46.7 | 406 | 4 | US-10-425-115-210308 | Sequence 210308, | 512 | 39 | 42.4 | 1359 | 5 | US-10-732-923-8889 | Sequence 8889, Ap |
| 440 | 42 | 45.7 | 13 | 4 | US-10-664-605-17 | Sequence 17, Appl | 513 | 39 | 42.4 | 1385 | 5 | US-10-732-923-8879 | Sequence 8879, Ap |
| 441 | 42 | 45.7 | 13 | 4 | US-10-664-605-19 | Sequence 19, Appl | 514 | 39 | 42.4 | 1466 | 3 | US-09-824-574-2 | Sequence 2, Appl |
| 442 | 42 | 45.7 | 88 | 4 | US-10-425-115-305090 | Sequence 305090, | 515 | 39 | 42.4 | 1466 | 5 | US-10-732-923-8138 | Sequence 8138, Ap |
| 443 | 42 | 45.7 | 176 | 4 | US-10-425-115-273865 | Sequence 273865, | 516 | 39 | 42.4 | 1241 | 4 | US-10-425-115-330570 | Sequence 330570, |
| 444 | 42 | 45.7 | 225 | 4 | US-10-424-599-203025 | Sequence 203025, | 517 | 39 | 42.4 | 1260 | 4 | US-10-425-114-50807 | Sequence 50807, A |
| 445 | 42 | 45.7 | 237 | 4 | US-10-335-977-6441 | Sequence 6441, Ap | 518 | 39 | 42.4 | 1327 | 4 | US-10-437-963-133368 | Sequence 133368, |
| 446 | 42 | 45.7 | 237 | 4 | US-10-335-977-6440 | Sequence 6440, Ap | 519 | 39 | 42.4 | 336 | 5 | US-10-739-930-9292 | Sequence 9292, Ap |
| 447 | 42 | 45.7 | 280 | 4 | US-10-335-977-6442 | Sequence 6442, Ap | 520 | 39 | 42.4 | 555 | 4 | US-10-437-963-198239 | Sequence 198239, |
| 448 | 42 | 45.7 | 273 | 4 | US-10-335-977-6443 | Sequence 6443, Ap | 521 | 39 | 42.4 | 787 | 4 | US-10-437-963-170329 | Sequence 170329, |
| 449 | 42 | 45.7 | 326 | 3 | US-09-943-002-8 | Sequence 8, Appl | 522 | 39 | 42.4 | 2296 | 5 | US-10-952-915-27 | Sequence 27, Appl |
| 450 | 42 | 45.7 | 523 | 4 | US-10-238-075-484 | Sequence 484, Appl | 523 | 39 | 42.4 | 2310 | 5 | US-09-995-542-10 | Sequence 10, Appl |
| 451 | 42 | 45.7 | 1518 | 5 | US-10-450-763-53038 | Sequence 53038, A | 524 | 39 | 42.4 | 15 | 6 | US-11-066-697-493 | Sequence 493, App |
| 452 | 41 | 44.6 | 65 | 4 | US-10-425-115-327432 | Sequence 327432, | 525 | 39 | 42.4 | 54 | 4 | US-10-425-115-232531 | Sequence 232531, |
| 453 | 41 | 44.6 | 72 | 4 | US-10-424-599-217890 | Sequence 217890, | 526 | 39 | 42.4 | | | | |
| 454 | 41 | 44.6 | 151 | 5 | US-10-450-763-45009 | Sequence 45009, A | 527 | 39 | 42.4 | | | | |
| 455 | 41 | 44.6 | 307 | 3 | US-09-738-973-397 | Sequence 397, Appl | 528 | 39 | 42.4 | | | | |
| 456 | 41 | 44.6 | 307 | 3 | US-09-854-133-397 | Sequence 397, Appl | 529 | 39 | 42.4 | | | | |
| 457 | 41 | 44.6 | 307 | 4 | US-10-144-649A-397 | Sequence 397, Appl | 530 | 38.5 | 41.8 | | | | |
| 458 | 41 | 44.6 | 322 | 4 | US-10-437-963-154216 | Sequence 154216, A | 531 | 38.5 | 41.8 | | | | |
| 459 | 41 | 44.6 | 357 | 5 | US-10-450-763-50180 | Sequence 50180, A | 532 | 38.5 | 41.8 | | | | |
| 460 | 41 | 44.6 | 1286 | 6 | US-10-450-763-40814 | Sequence 40814, A | 533 | 38.5 | 41.8 | | | | |
| 461 | 41 | 44.6 | 1698 | 4 | US-10-437-963-123652 | Sequence 123652, | 534 | 38.5 | 41.8 | | | | |
| 462 | 41 | 44.6 | 1794 | 4 | US-10-437-963-123654 | Sequence 123654, | 535 | 38.5 | 41.8 | | | | |
| 463 | 40.5 | 44.0 | 64 | 4 | US-10-425-115-196089 | Sequence 196089, | 536 | 38.5 | 41.8 | | | | |
| 464 | 40.5 | 44.0 | 1307 | 5 | US-10-741-600-1168 | Sequence 1168, Ap | 537 | 38 | 41.3 | | | | |
| 465 | 40 | 43.5 | 103 | 4 | US-10-425-115-260286 | Sequence 260286, | 538 | 38 | 41.3 | | | | |

| | | | | | | | | | | | | | |
|-----|------|------|------|---|----------------------|--------------------|-----|----|------|-----|---|----------------------|--------------------|
| 539 | 38 | 41.3 | 59 | 4 | US-10-767-701-33921 | Sequence 33921, A | 612 | 37 | 40.2 | 55 | 4 | US-10-424-599-185739 | Sequence 185739, A |
| 540 | 38 | 41.3 | 87 | 3 | US-09-764-891-2746 | Sequence 2746, Ap | 613 | 37 | 40.2 | 59 | 4 | US-10-282-122A-52336 | Sequence 52336, A |
| 541 | 38 | 41.3 | 100 | 4 | US-10-425-114-36669 | Sequence 36669, A | 614 | 37 | 40.2 | 63 | 4 | US-10-437-963-203210 | Sequence 203210, A |
| 542 | 38 | 41.3 | 144 | 3 | US-09-759-143-480 | Sequence 480, App | 615 | 37 | 40.2 | 78 | 4 | US-10-424-599-226374 | Sequence 226374, A |
| 543 | 38 | 41.3 | 144 | 3 | US-09-780-669-480 | Sequence 480, App | 616 | 37 | 40.2 | 79 | 4 | US-10-425-115-353674 | Sequence 353674, A |
| 544 | 38 | 41.3 | 144 | 3 | US-09-822-827-480 | Sequence 480, App | 617 | 37 | 40.2 | 84 | 5 | US-10-450-763-60380 | Sequence 60380, A |
| 545 | 38 | 41.3 | 144 | 3 | US-09-895-793-480 | Sequence 480, App | 618 | 37 | 40.2 | 89 | 4 | US-10-425-115-220004 | Sequence 220004, A |
| 546 | 38 | 41.3 | 144 | 3 | US-09-895-814-480 | Sequence 480, App | 619 | 37 | 40.2 | 95 | 4 | US-10-424-599-226482 | Sequence 226482, A |
| 547 | 38 | 41.3 | 144 | 4 | US-10-012-896-480 | Sequence 480, App | 620 | 37 | 40.2 | 100 | 4 | US-10-437-963-202646 | Sequence 202646, A |
| 548 | 38 | 41.3 | 144 | 4 | US-10-010-940-480 | Sequence 480, App | 621 | 37 | 40.2 | 106 | 4 | US-10-424-599-262988 | Sequence 262988, A |
| 549 | 38 | 41.3 | 144 | 4 | US-10-144-678A-480 | Sequence 480, App | 622 | 37 | 40.2 | 108 | 4 | US-10-425-115-290278 | Sequence 290278, A |
| 550 | 38 | 41.3 | 144 | 4 | US-10-294-025-480 | Sequence 480, App | 623 | 37 | 40.2 | 115 | 4 | US-10-425-114-49751 | Sequence 49751, A |
| 551 | 38 | 41.3 | 154 | 4 | US-10-424-599-172327 | Sequence 172327, A | 624 | 37 | 40.2 | 116 | 4 | US-10-437-963-108890 | Sequence 108890, A |
| 552 | 38 | 41.3 | 164 | 4 | US-10-425-114-72357 | Sequence 72357, A | 625 | 37 | 40.2 | 121 | 4 | US-10-424-599-163142 | Sequence 163142, A |
| 553 | 38 | 41.3 | 164 | 4 | US-10-425-115-220458 | Sequence 220458, A | 626 | 37 | 40.2 | 126 | 4 | US-10-767-701-55526 | Sequence 55526, A |
| 554 | 38 | 41.3 | 170 | 5 | US-10-739-930-10278 | Sequence 10278, A | 627 | 37 | 40.2 | 126 | 4 | US-10-425-115-203135 | Sequence 203135, A |
| 555 | 38 | 41.3 | 175 | 4 | US-10-425-115-361754 | Sequence 361754, A | 628 | 37 | 40.2 | 130 | 4 | US-10-437-963-200018 | Sequence 200018, A |
| 556 | 38 | 41.3 | 183 | 4 | US-10-437-963-153128 | Sequence 153128, A | 629 | 37 | 40.2 | 131 | 4 | US-10-369-493-19836 | Sequence 19836, A |
| 557 | 38 | 41.3 | 185 | 4 | US-10-424-599-248729 | Sequence 248729, A | 630 | 37 | 40.2 | 138 | 4 | US-10-425-115-254736 | Sequence 254736, A |
| 558 | 38 | 41.3 | 188 | 4 | US-10-425-115-361757 | Sequence 361757, A | 631 | 37 | 40.2 | 141 | 4 | US-10-425-115-271636 | Sequence 271636, A |
| 559 | 38 | 41.3 | 215 | 4 | US-10-425-114-62199 | Sequence 62199, A | 632 | 37 | 40.2 | 156 | 4 | US-10-437-963-177510 | Sequence 177510, A |
| 560 | 38 | 41.3 | 230 | 4 | US-10-437-963-201457 | Sequence 201457, A | 633 | 37 | 40.2 | 161 | 4 | US-10-767-701-37441 | Sequence 37441, A |
| 561 | 38 | 41.3 | 231 | 4 | US-10-243-552-564 | Sequence 564, App | 634 | 37 | 40.2 | 161 | 4 | US-10-425-115-291929 | Sequence 291929, A |
| 562 | 38 | 41.3 | 235 | 4 | US-10-767-701-38475 | Sequence 38475, A | 635 | 37 | 40.2 | 162 | 4 | US-10-425-115-291927 | Sequence 291927, A |
| 563 | 38 | 41.3 | 241 | 4 | US-10-767-701-35710 | Sequence 35710, A | 636 | 37 | 40.2 | 181 | 4 | US-10-425-115-286529 | Sequence 286529, A |
| 564 | 38 | 41.3 | 246 | 4 | US-10-282-122A-54376 | Sequence 54376, A | 637 | 37 | 40.2 | 186 | 5 | US-10-822-613-4 | Sequence 4, Appli |
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| 570 | 38 | 41.3 | 356 | 4 | US-10-231-956A-33 | Sequence 33, Appli | 643 | 37 | 40.2 | 214 | 3 | US-09-818-683-354 | Sequence 354, App |
| 571 | 38 | 41.3 | 356 | 4 | US-10-263-929-164 | Sequence 164, App | 644 | 37 | 40.2 | 214 | 3 | US-09-818-683-354 | Sequence 354, App |
| 572 | 38 | 41.3 | 356 | 4 | US-10-263-929-168 | Sequence 168, App | 645 | 37 | 40.2 | 226 | 4 | US-10-296-115-980 | Sequence 980, App |
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| 574 | 38 | 41.3 | 395 | 5 | US-10-450-763-54591 | Sequence 54591, A | 647 | 37 | 40.2 | 246 | 4 | US-10-104-047-2195 | Sequence 2195, Ap |
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| 576 | 38 | 41.3 | 488 | 4 | US-10-425-114-66723 | Sequence 66723, A | 649 | 37 | 40.2 | 260 | 4 | US-10-286-152A-54 | Sequence 54, Appli |
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| 578 | 38 | 41.3 | 502 | 3 | US-09-815-242-5904 | Sequence 5904, Ap | 651 | 37 | 40.2 | 260 | 5 | US-10-936-626-94 | Sequence 94, Appli |
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| 590 | 38 | 41.3 | 1108 | 4 | US-10-437-963-149563 | Sequence 149563, A | 663 | 37 | 40.2 | 300 | 4 | US-10-425-115-194169 | Sequence 194169, A |
| 591 | 38 | 41.3 | 1124 | 5 | US-10-732-923-12517 | Sequence 12517, A | 664 | 37 | 40.2 | 302 | 3 | US-09-996-069-11 | Sequence 11, Appli |
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| 595 | 38 | 41.3 | 2151 | 4 | US-10-437-963-196350 | Sequence 196350, A | 668 | 37 | 40.2 | 338 | 4 | US-10-412-699B-1695 | Sequence 1695, Ap |
| 596 | 38 | 41.3 | 2261 | 5 | US-10-470-048B-60 | Sequence 60, Appli | 669 | 37 | 40.2 | 338 | 4 | US-10-437-963-105355 | Sequence 105355, A |
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| 600 | 37.5 | 40.8 | 122 | 4 | US-10-437-963-200020 | Sequence 200020, A | 673 | 37 | 40.2 | 361 | 4 | US-10-295-403-36 | Sequence 36, Appli |
| 601 | 37.5 | 40.8 | 162 | 4 | US-10-424-599-233454 | Sequence 233454, A | 674 | 37 | 40.2 | 361 | 4 | US-10-225-066A-578 | Sequence 578, App |
| 602 | 37.5 | 40.8 | 246 | 4 | US-10-425-114-55763 | Sequence 55763, A | 675 | 37 | 40.2 | 361 | 4 | US-10-374-780A-2072 | Sequence 2072, App |
| 603 | 37.5 | 40.8 | 248 | 4 | US-10-424-599-206776 | Sequence 206776, A | 676 | 37 | 40.2 | 361 | 4 | US-10-412-699B-1828 | Sequence 1828, Ap |
| 604 | 37.5 | 40.8 | 325 | 4 | US-10-424-599-281654 | Sequence 281654, A | 677 | 37 | 40.2 | 361 | 4 | US-10-685-922-6 | Sequence 6, Appli |
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| 610 | 37 | 40.2 | 15 | 4 | US-10-664-605-13 | Sequence 13, Appli | 683 | 37 | 40.2 | 375 | 4 | US-10-264-237-2015 | Sequence 2015, Ap |
| 611 | 37 | 40.2 | 30 | 6 | US-11-066-697-22 | Sequence 22, Appli | 684 | 37 | 40.2 | 392 | 4 | US-10-425-114-56195 | Sequence 56195, A |

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|-----|----|------|-----|---|----------------------|-------------------|-----|----|------|-----|---|--------------------|-------------------|
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| 702 | 37 | 40.2 | 513 | 4 | US-10-066-867-124 | Sequence 124, App | 775 | 37 | 40.2 | 513 | 4 | US-10-147-502-536 | Sequence 536, App |
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| 713 | 37 | 40.2 | 513 | 4 | US-10-123-904-536 | Sequence 536, App | 786 | 37 | 40.2 | 513 | 4 | US-10-123-909-536 | Sequence 536, App |
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| 718 | 37 | 40.2 | 513 | 4 | US-10-176-921-536 | Sequence 536, App | 791 | 37 | 40.2 | 513 | 4 | US-10-125-924-536 | Sequence 536, App |
| 719 | 37 | 40.2 | 513 | 4 | US-10-063-549-124 | Sequence 124, App | 792 | 37 | 40.2 | 513 | 4 | US-10-140-860-536 | Sequence 536, App |
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| 727 | 37 | 40.2 | 513 | 4 | US-10-063-553-124 | Sequence 124, App | 800 | 37 | 40.2 | 513 | 4 | US-10-125-926A-536 | Sequence 536, App |
| 728 | 37 | 40.2 | 513 | 4 | US-10-063-518-124 | Sequence 124, App | 801 | 37 | 40.2 | 513 | 4 | US-10-125-930A-536 | Sequence 536, App |
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| 834 | 37 | 40.2 | 513 | 4 | US-10-158-782-536 | Sequence 536, App | 907 | 37 | 40.2 | 513 | 4 | US-10-141-702-536 | Sequence 536, App |
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| 839 | 37 | 40.2 | 513 | 4 | US-10-124-815-536 | Sequence 536, App | 912 | 37 | 40.2 | 513 | 4 | US-10-143-033-536 | Sequence 536, App |
| 840 | 37 | 40.2 | 513 | 4 | US-10-125-921A-536 | Sequence 536, App | 913 | 37 | 40.2 | 513 | 4 | US-10-144-994-536 | Sequence 536, App |
| 841 | 37 | 40.2 | 513 | 4 | US-10-125-928A-536 | Sequence 536, App | 914 | 37 | 40.2 | 513 | 4 | US-10-145-628-536 | Sequence 536, App |
| 842 | 37 | 40.2 | 513 | 4 | US-10-127-821A-536 | Sequence 536, App | 915 | 37 | 40.2 | 513 | 4 | US-10-145-746-536 | Sequence 536, App |
| 843 | 37 | 40.2 | 513 | 4 | US-10-127-822A-536 | Sequence 536, App | 916 | 37 | 40.2 | 513 | 4 | US-10-145-748-536 | Sequence 536, App |
| 844 | 37 | 40.2 | 513 | 4 | US-10-127-824A-536 | Sequence 536, App | 917 | 37 | 40.2 | 513 | 4 | US-10-145-823-536 | Sequence 536, App |
| 845 | 37 | 40.2 | 513 | 4 | US-10-127-826A-536 | Sequence 536, App | 918 | 37 | 40.2 | 513 | 4 | US-10-145-826-536 | Sequence 536, App |
| 846 | 37 | 40.2 | 513 | 4 | US-10-127-827A-536 | Sequence 536, App | 919 | 37 | 40.2 | 513 | 4 | US-10-145-870-536 | Sequence 536, App |
| 847 | 37 | 40.2 | 513 | 4 | US-10-127-828A-536 | Sequence 536, App | 920 | 37 | 40.2 | 513 | 4 | US-10-145-876-536 | Sequence 536, App |
| 848 | 37 | 40.2 | 513 | 4 | US-10-127-830A-536 | Sequence 536, App | 921 | 37 | 40.2 | 513 | 4 | US-10-145-959-536 | Sequence 536, App |
| 849 | 37 | 40.2 | 513 | 4 | US-10-127-832A-536 | Sequence 536, App | 922 | 37 | 40.2 | 513 | 4 | US-10-146-724-536 | Sequence 536, App |
| 850 | 37 | 40.2 | 513 | 4 | US-10-127-833A-536 | Sequence 536, App | 923 | 37 | 40.2 | 513 | 4 | US-10-146-725-536 | Sequence 536, App |
| 851 | 37 | 40.2 | 513 | 4 | US-10-127-834A-536 | Sequence 536, App | 924 | 37 | 40.2 | 513 | 4 | US-10-146-795-536 | Sequence 536, App |
| 852 | 37 | 40.2 | 513 | 4 | US-10-127-836A-536 | Sequence 536, App | 925 | 37 | 40.2 | 513 | 4 | US-10-147-495-536 | Sequence 536, App |
| 853 | 37 | 40.2 | 513 | 4 | US-10-127-841A-536 | Sequence 536, App | 926 | 37 | 40.2 | 513 | 4 | US-10-147-501-536 | Sequence 536, App |
| 854 | 37 | 40.2 | 513 | 4 | US-10-127-844A-536 | Sequence 536, App | 927 | 37 | 40.2 | 513 | 4 | US-10-147-504-536 | Sequence 536, App |
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| 856 | 37 | 40.2 | 513 | 4 | US-10-128-688A-536 | Sequence 536, App | 929 | 37 | 40.2 | 513 | 4 | US-10-147-509-536 | Sequence 536, App |
| 857 | 37 | 40.2 | 513 | 4 | US-10-128-689A-536 | Sequence 536, App | 930 | 37 | 40.2 | 513 | 4 | US-10-147-510-536 | Sequence 536, App |
| 858 | 37 | 40.2 | 513 | 4 | US-10-128-694A-536 | Sequence 536, App | 931 | 37 | 40.2 | 513 | 4 | US-10-147-511-536 | Sequence 536, App |
| 859 | 37 | 40.2 | 513 | 4 | US-10-131-825A-536 | Sequence 536, App | 932 | 37 | 40.2 | 513 | 4 | US-10-147-529-536 | Sequence 536, App |
| 860 | 37 | 40.2 | 513 | 4 | US-10-230-417-536 | Sequence 536, App | 933 | 37 | 40.2 | 513 | 4 | US-10-152-397-536 | Sequence 536, App |
| 861 | 37 | 40.2 | 513 | 4 | US-10-007-194A-385 | Sequence 385, App | 934 | 37 | 40.2 | 513 | 4 | US-10-153-586-536 | Sequence 536, App |
| 862 | 37 | 40.2 | 513 | 4 | US-10-131-815A-536 | Sequence 536, App | 935 | 37 | 40.2 | 513 | 4 | US-10-158-786-536 | Sequence 536, App |
| 863 | 37 | 40.2 | 513 | 4 | US-10-131-817A-536 | Sequence 536, App | 936 | 37 | 40.2 | 513 | 4 | US-10-015-387A-385 | Sequence 385, App |
| 864 | 37 | 40.2 | 513 | 4 | US-10-131-821A-536 | Sequence 536, App | 937 | 37 | 40.2 | 513 | 4 | US-10-063-735-124 | Sequence 124, App |
| 865 | 37 | 40.2 | 513 | 4 | US-10-131-822A-536 | Sequence 536, App | 938 | 37 | 40.2 | 513 | 4 | US-10-137-870-536 | Sequence 536, App |
| 866 | 37 | 40.2 | 513 | 4 | US-10-131-828A-536 | Sequence 536, App | 939 | 37 | 40.2 | 513 | 4 | US-10-140-018-536 | Sequence 536, App |
| 867 | 37 | 40.2 | 513 | 4 | US-10-131-835A-536 | Sequence 536, App | 940 | 37 | 40.2 | 513 | 4 | US-10-140-021-536 | Sequence 536, App |
| 868 | 37 | 40.2 | 513 | 4 | US-10-137-864A-536 | Sequence 536, App | 941 | 37 | 40.2 | 513 | 4 | US-10-140-471-536 | Sequence 536, App |
| 869 | 37 | 40.2 | 513 | 4 | US-10-137-869A-536 | Sequence 536, App | 942 | 37 | 40.2 | 513 | 4 | US-10-140-922-536 | Sequence 536, App |
| 870 | 37 | 40.2 | 513 | 4 | US-10-147-523-536 | Sequence 536, App | 943 | 37 | 40.2 | 513 | 4 | US-10-145-631-536 | Sequence 536, App |
| 871 | 37 | 40.2 | 513 | 4 | US-10-158-785-536 | Sequence 536, App | 944 | 37 | 40.2 | 513 | 4 | US-10-145-633-536 | Sequence 536, App |
| 872 | 37 | 40.2 | 513 | 4 | US-10-121-051-536 | Sequence 536, App | 945 | 37 | 40.2 | 513 | 4 | US-10-158-783-536 | Sequence 536, App |
| 873 | 37 | 40.2 | 513 | 4 | US-10-013-430A-385 | Sequence 385, App | 946 | 37 | 40.2 | 513 | 4 | US-10-140-274-536 | Sequence 536, App |
| 874 | 37 | 40.2 | 513 | 4 | US-10-121-042-536 | Sequence 536, App | 947 | 37 | 40.2 | 513 | 4 | US-10-006-130A-385 | Sequence 385, App |
| 875 | 37 | 40.2 | 513 | 4 | US-10-011-671A-385 | Sequence 385, App | 948 | 37 | 40.2 | 513 | 4 | US-10-140-019-536 | Sequence 536, App |
| 876 | 37 | 40.2 | 513 | 4 | US-10-012-755A-385 | Sequence 385, App | 949 | 37 | 40.2 | 513 | 4 | US-10-140-022-536 | Sequence 536, App |
| 877 | 37 | 40.2 | 513 | 4 | US-10-015-386A-385 | Sequence 385, App | 950 | 37 | 40.2 | 513 | 4 | US-10-140-861-536 | Sequence 536, App |
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| 879 | 37 | 40.2 | 513 | 4 | US-10-192-007-536 | Sequence 536, App | 952 | 37 | 40.2 | 513 | 4 | US-10-141-697-536 | Sequence 536, App |
| 880 | 37 | 40.2 | 513 | 4 | US-10-194-359-536 | Sequence 536, App | 953 | 37 | 40.2 | 513 | 4 | US-10-141-700-536 | Sequence 536, App |
| 881 | 37 | 40.2 | 513 | 4 | US-10-063-580-124 | Sequence 124, App | 954 | 37 | 40.2 | 513 | 4 | US-10-141-705-536 | Sequence 536, App |
| 882 | 37 | 40.2 | 513 | 4 | US-10-011-692A-385 | Sequence 385, App | 955 | 37 | 40.2 | 513 | 4 | US-10-141-753-536 | Sequence 536, App |
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| 884 | 37 | 40.2 | 513 | 4 | US-10-006-768A-385 | Sequence 385, App | 957 | 37 | 40.2 | 513 | 4 | US-10-142-418-536 | Sequence 536, App |
| 885 | 37 | 40.2 | 513 | 4 | US-10-017-610A-385 | Sequence 385, App | 958 | 37 | 40.2 | 513 | 4 | US-10-142-420-536 | Sequence 536, App |
| 886 | 37 | 40.2 | 513 | 4 | US-10-006-063A-385 | Sequence 385, App | 959 | 37 | 40.2 | 513 | 4 | US-10-142-422-536 | Sequence 536, App |
| 887 | 37 | 40.2 | 513 | 4 | US-10-063-585-124 | Sequence 124, App | 960 | 37 | 40.2 | 513 | 4 | US-10-142-427-536 | Sequence 536, App |
| 888 | 37 | 40.2 | 513 | 4 | US-10-020-063A-385 | Sequence 385, App | 961 | 37 | 40.2 | 513 | 4 | US-10-142-760-536 | Sequence 536, App |
| 889 | 37 | 40.2 | 513 | 4 | US-10-127-847A-536 | Sequence 536, App | 962 | 37 | 40.2 | 513 | 4 | US-10-145-821-536 | Sequence 536, App |
| 890 | 37 | 40.2 | 513 | 4 | US-10-015-391A-385 | Sequence 385, App | 963 | 37 | 40.2 | 513 | 4 | US-10-152-531-536 | Sequence 536, App |
| 891 | 37 | 40.2 | 513 | 4 | US-10-081-872-146 | Sequence 146, App | 964 | 37 | 40.2 | 513 | 4 | US-10-006-172A-385 | Sequence 385, App |
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| 893 | 37 | 40.2 | 513 | 4 | US-10-011-833A-385 | Sequence 385, App | 966 | 37 | 40.2 | 513 | 4 | US-10-142-424-536 | Sequence 536, App |
| 894 | 37 | 40.2 | 513 | 4 | US-10-137-866-536 | Sequence 536, App | 967 | 37 | 40.2 | 513 | 4 | US-10-142-761-536 | Sequence 536, App |
| 895 | 37 | 40.2 | 513 | 4 | US-10-146-726-536 | Sequence 536, App | 968 | 37 | 40.2 | 513 | 4 | US-10-142-763-536 | Sequence 536, App |
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| 897 | 37 | 40.2 | 513 | 4 | US-10-146-788-536 | Sequence 536, App | 970 | 37 | 40.2 | 513 | 4 | US-10-142-887-536 | Sequence 536, App |
| 898 | 37 | 40.2 | 513 | 4 | US-10-152-380-536 | Sequence 536, App | 971 | 37 | 40.2 | 513 | 4 | US-10-142-888-536 | Sequence 536, App |
| 899 | 37 | 40.2 | 513 | 4 | US-10-153-934-385 | Sequence 536, App | 972 | 37 | 40.2 | 513 | 4 | US-10-143-034-536 | Sequence 536, App |
| 900 | 37 | 40.2 | 513 | 4 | US-10-063-588-124 | Sequence 124, App | 973 | 37 | 40.2 | 513 | 4 | US-10-143-116-536 | Sequence 536, App |
| 901 | 37 | 40.2 | 513 | 4 | US-10-006-041A-385 | Sequence 385, App | 974 | 37 | 40.2 | 513 | 4 | US-10-144-957-536 | Sequence 536, App |
| 902 | 37 | 40.2 | 513 | 4 | US-10-015-822A-385 | Sequence 385, App | 975 | 37 | 40.2 | 513 | 4 | US-10-144-992-536 | Sequence 536, App |
| 903 | 37 | 40.2 | 513 | 4 | US-10-140-807-536 | Sequence 536, App | 976 | 37 | 40.2 | 513 | 4 | US-10-145-015-536 | Sequence 536, App |


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977 37 40.2 513 4 US-10-145-090-536 Sequence 536, App
978 37 40.2 513 4 US-10-145-091-536 Sequence 536, App
979 37 40.2 513 4 US-10-145-629-536 Sequence 536, App
980 37 40.2 513 4 US-10-145-630-536 Sequence 536, App
981 37 40.2 513 4 US-10-145-747-536 Sequence 536, App
982 37 40.2 513 4 US-10-145-752-536 Sequence 536, App
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984 37 40.2 513 4 US-10-145-755-536 Sequence 536, App
985 37 40.2 513 4 US-10-145-818-536 Sequence 536, App
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989 37 40.2 513 4 US-10-147-481-536 Sequence 536, App
990 37 40.2 513 4 US-10-147-482-536 Sequence 536, App
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992 37 40.2 513 4 US-10-147-522-536 Sequence 536, App
993 37 40.2 513 4 US-10-152-401-536 Sequence 536, App
994 37 40.2 513 4 US-10-157-783-536 Sequence 536, App
995 37 40.2 513 4 US-10-158-792-536 Sequence 536, App
996 37 40.2 513 4 US-10-158-462-536 Sequence 536, App
997 37 40.2 513 4 US-10-017-253A-385 Sequence 385, App
998 37 40.2 513 4 US-10-143-035-536 Sequence 536, App
999 37 40.2 513 4 US-10-145-751-536 Sequence 536, App
1000 37 40.2 513 4 US-10-145-822-536 Sequence 536, App

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ALIGNMENTS

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RESULT 1
US-10-723-933-128
; Sequence 128, Application US/10723933
; Publication No. US20040203081A1
; GENERAL INFORMATION:
; APPLICANT: James, Kenneth D.
; APPLICANT: Rahdakrishnan, Balasingham
; APPLICANT: Malkar, Navdeep B.
; APPLICANT: Miller, Mark A.
; APPLICANT: Ekwuribe, Nnochiri N.
; TITLE OF INVENTION: NATRIURETIC COMPOUNDS, CONJUGATES, AND USES THEREOF
; CURRENT APPLICATION NUMBER: US/10/723,933
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/429,151
; PRIOR FILING DATE: 2002-11-26
; NUMBER OF SEQ ID NOS: 137
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 128
; LENGTH: 17
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Natriuretic peptide
US-10-723-933-128

Query Match 100.0%; Score 92; DB 4; Length 17;
Best Local Similarity 100.0%; Pred. No. 3.1e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 CFGRKMDRISSSSGLGC 17
DB 1 CFGRKMDRISSSSGLGC 17

RESULT 2
US-10-737-290-172
; Sequence 172, Application US/10737290
; Publication No. US20040253242A1
; GENERAL INFORMATION:
; APPLICANT: Bowdish, Katherine S.
; APPLICANT: Frederickson, Shana
; APPLICANT: Renshaw, Mark
; APPLICANT: Orellana, Cecilia

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; TITLE OF INVENTION: RATIONALLY DESIGNED ANTIBODIES
; FILE REFERENCE: 1087-2 CIP III
; CURRENT APPLICATION NUMBER: US/10/737,290
; CURRENT FILING DATE: 2003-12-15
; PRIOR APPLICATION NUMBER: US 10/452,590
; PRIOR FILING DATE: 2003-06-02
; PRIOR APPLICATION NUMBER: US 10/307,724
; PRIOR FILING DATE: 2002-12-02
; PRIOR APPLICATION NUMBER: US 10/006,593
; PRIOR FILING DATE: 2001-12-05
; PRIOR APPLICATION NUMBER: US 60/251,448
; PRIOR FILING DATE: 2000-12-05
; PRIOR APPLICATION NUMBER: US 60/288,889
; PRIOR FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: US 60/294,068
; PRIOR FILING DATE: 2001-05-29
; NUMBER OF SEQ ID NOS: 193
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 172
; LENGTH: 17
; TYPE: PRT
; ORGANISM: human
US-10-737-290-172

Query Match 100.0%; Score 92; DB 5; Length 17;
Best Local Similarity 100.0%; Pred. No. 3.1e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 CFGRKMDRISSSSGLGC 17
DB 1 CFGRKMDRISSSSGLGC 17

RESULT 4
US-10-471-348-44
; Sequence 44, Application US/10471348
; Publication No. US20040266673A1
; GENERAL INFORMATION:

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; APPLICANT: ConjuChem, Inc.
; TITLE OF INVENTION: Long lasting natriuretic peptide derivatives
; FILE REFERENCE: 2710
; CURRENT APPLICATION NUMBER: US/10/471,348
; CURRENT FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: US 60/400,199
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 60/400,413
; PRIOR FILING DATE: 2002-07-31
; NUMBER OF SEQ ID NOS: 58
; SEQ ID NO 44
; LENGTH: 18
; TYPE: PRT
; ORGANISM: Artificial Sequence
; NAME/KEY: DISULFID
; LOCATION: From 1 to 17
; NAME/KEY: SITE
; LOCATION: 18
; OTHER INFORMATION: Xaa represents Lys(AEEA-MPA) -CONH2
; FEATURE:
; OTHER INFORMATION: Description of Sequence: synthetic peptide
US-10-471-348-44

Query Match          100.0%; Score 92; DB 5; Length 18;
Best Local Similarity 100.0%; Pred. No. 3.2e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISSSSGLGC 17
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Db 1 CFCGRKMDRISSSSGLGC 17

RESULT 5
US-11-040-810-44
; Sequence 44, Application US/11040810
; Publication No. US20050176641A1
; GENERAL INFORMATION:
; APPLICANT: BAKIS, Peter
; APPLICANT: BRIDON, Dominique P.
; APPLICANT: CARETTE, Julie
; APPLICANT: LECLAIRE, France
; APPLICANT: LEGER, Roger
; APPLICANT: ROBITAILLE, Martin
; TITLE OF INVENTION: Long lasting natriuretic peptide derivatives
; FILE REFERENCE: 500862003401
; CURRENT APPLICATION NUMBER: US/11/040,810
; CURRENT FILING DATE: 2005-01-21
; PRIOR APPLICATION NUMBER: US 10/471,348
; PRIOR FILING DATE: 2003-07-29
; PRIOR APPLICATION NUMBER: PCT/CA03/01097
; PRIOR FILING DATE: 2003-07-29
; PRIOR APPLICATION NUMBER: US 60/400,199
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 60/400,413
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 09/623,548
; PRIOR FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: PCT/US00/13576
; PRIOR FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: US 09/657/276
; PRIOR FILING DATE: 2000-09-07
; NUMBER OF SEQ ID NOS: 58
; SEQ ID NO 44
; LENGTH: 18
; TYPE: PRT
; ORGANISM: Artificial Sequence
; NAME/KEY: DISULFID
; LOCATION: From 1 to 17
; NAME/KEY: SITE
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; LOCATION: 18
; OTHER INFORMATION: Xaa represents Lys(AEEA-MPA) -CONH2
; FEATURE:
; OTHER INFORMATION: Description of Sequence: synthetic peptide
US-11-040-810-44

Query Match          100.0%; Score 92; DB 6; Length 18;
Best Local Similarity 100.0%; Pred. No. 3.2e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISSSSGLGC 17
   |||||
Db 1 CFCGRKMDRISSSSGLGC 17

RESULT 6
US-10-723-933-130
; Sequence 130, Application US/10723933
; Publication No. US20040203081A1
; GENERAL INFORMATION:
; APPLICANT: James, Kenneth D.
; APPLICANT: Rahdakrishnan, Balasingham
; APPLICANT: Walker, Navdeep B.
; APPLICANT: Miller, Mark A.
; APPLICANT: Ekwuribe, Nnochiri N.
; TITLE OF INVENTION: NATRIURETIC COMPOUNDS, CONJUGATES, AND USES THEREOF
; FILE REFERENCE: 9233.108
; CURRENT APPLICATION NUMBER: US/10/723,933
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/429,151
; PRIOR FILING DATE: 2002-11-26
; NUMBER OF SEQ ID NOS: 137
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 130
; LENGTH: 23
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Natriuretic peptide
US-10-723-933-130

Query Match          100.0%; Score 92; DB 4; Length 23;
Best Local Similarity 100.0%; Pred. No. 4.2e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFCGRKMDRISSSSGLGC 17
   |||||
Db 1 CFCGRKMDRISSSSGLGC 17

RESULT 7
US-10-471-348-31
; Sequence 31, Application US/10471348
; Publication No. US20040266673A1
; GENERAL INFORMATION:
; APPLICANT: ConjuChem, Inc.
; TITLE OF INVENTION: Long lasting natriuretic peptide derivatives
; FILE REFERENCE: 2710
; CURRENT APPLICATION NUMBER: US/10/471,348
; CURRENT FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: US 60/400,199
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 60/400,413
; PRIOR FILING DATE: 2002-07-31
; NUMBER OF SEQ ID NOS: 58
; SEQ ID NO 31
; LENGTH: 23
; TYPE: PRT
; ORGANISM: Artificial Sequence
; NAME/KEY: DISULFID
; LOCATION: From 1 to 17
; FEATURE:
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; NAME/KEY: AMIDATION
; LOCATION: 23
; OTHER INFORMATION: Xaa represents His-CONH2
; FEATURE:
; OTHER INFORMATION: Description of Sequence: synthetic peptide
US-10-471-348-31
;
Query Match      100.0%; Score 92; DB 5; Length 23;
Best Local Similarity 100.0%; Pred. No. 4.2e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 CFGRKMDRISSSSGLGC 17
Db      1 CFGRKMDRISSSSGLGC 17

RESULT 8
US-11-040-810-31
; Sequence 31, Application US/11040810
; Publication No. US20050176641A1
; GENERAL INFORMATION:
; APPLICANT: BAKIS, Peter
; APPLICANT: BRIDON, Dominique P.
; APPLICANT: CARETTE, Julie
; APPLICANT: LECCLAIRE, France
; APPLICANT: LEGER, Roger
; APPLICANT: ROBITAILLE, Martin
; TITLE OF INVENTION: Long lasting natriuretic peptide derivatives
; FILE REFERENCE: 500862003401
; CURRENT APPLICATION NUMBER: US/11/040,810
; CURRENT FILING DATE: 2005-01-21
; PRIOR APPLICATION NUMBER: US 10/471,348
; PRIOR FILING DATE: 2003-07-29
; PRIOR APPLICATION NUMBER: PCT/CA03/01097
; PRIOR FILING DATE: 2003-07-29
; PRIOR APPLICATION NUMBER: US 60/400,199
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 60/400,413
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 09/623,548
; PRIOR FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: PCT/US00/13576
; PRIOR FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: US 09/657/276
; PRIOR FILING DATE: 2000-09-07
; NUMBER OF SEQ ID NOS: 58
; SEQ ID NO 31
; LENGTH: 23
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: DISULFID
; LOCATION: From 1 to 17
; FEATURE:
; NAME/KEY: AMIDATION
; LOCATION: 23
; OTHER INFORMATION: Xaa represents His-CONH2
; OTHER INFORMATION: Description of Sequence: synthetic peptide
US-11-040-810-31
;
Query Match      100.0%; Score 92; DB 6; Length 23;
Best Local Similarity 100.0%; Pred. No. 4.2e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 CFGRKMDRISSSSGLGC 17
Db      1 CFGRKMDRISSSSGLGC 17

RESULT 9
US-10-723-933-127
; Sequence 127, Application US/10723933
; Publication No. US20040203081A1
; GENERAL INFORMATION:
; APPLICANT: James, Kenneth D.
; APPLICANT: Randakrishnan, Balasingham
; APPLICANT: Malkar, Navdeep B.
; APPLICANT: Miller, Mark A.
; APPLICANT: Ekwuribe, Nnochiri N.
; TITLE OF INVENTION: NATRIURETIC COMPOUNDS, CONJUGATES, AND USES THEREOF
; FILE REFERENCE: 9233.108
; CURRENT APPLICATION NUMBER: US/10/723,933
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/429,151
; PRIOR FILING DATE: 2002-11-26
; NUMBER OF SEQ ID NOS: 137
; SOFTWARE: Patentin version 3.2
; SEQ ID NO 127
; LENGTH: 24
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Natriuretic peptide
; FEATURE:
; NAME/KEY: DISULFID
; LOCATION: (8) .. (8)
; FEATURE:
; NAME/KEY: DISULFID
; LOCATION: (24) .. (24)
; US-10-723-933-127
;
Query Match      100.0%; Score 92; DB 4; Length 24;
Best Local Similarity 100.0%; Pred. No. 4.4e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 CFGRKMDRISSSSGLGC 17
Db      8 CFGRKMDRISSSSGLGC 24

RESULT 10
US-10-471-348-33
; Sequence 33, Application US/10471348
; Publication No. US20040266673A1
; GENERAL INFORMATION:
; APPLICANT: ConjuChem, Inc.
; TITLE OF INVENTION: Long lasting natriuretic peptide derivatives
; FILE REFERENCE: 2710
; CURRENT APPLICATION NUMBER: US/10/471,348
; CURRENT FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: US 60/400,199
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 60/400,413
; PRIOR FILING DATE: 2002-07-31
; NUMBER OF SEQ ID NOS: 58
; SEQ ID NO 33
; LENGTH: 24
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: DISULFID
; LOCATION: From 1 to 17
; FEATURE:
; NAME/KEY: SITE
; LOCATION: 24
; OTHER INFORMATION: Xaa represents Lys(AEEA-MPA)-CONH2
; FEATURE:
; OTHER INFORMATION: Description of Sequence: synthetic peptide
US-10-471-348-33
;
Query Match      100.0%; Score 92; DB 5; Length 24;
Best Local Similarity 100.0%; Pred. No. 4.4e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 CFGRKMDRISSSSGLGC 17
```

```
Db      1  CFCGRKMDRISSSSGLGC 17
|||||
RESULT 11
US-11-040-810-33
; Sequence 33, Application US/11040810
; Publication No. US20050176641A1
; GENERAL INFORMATION:
; APPLICANT: BAKIS, Peter
; APPLICANT: BRIDON, Dominique P.
; APPLICANT: CARETTE, Julie
; APPLICANT: LECLAIRE, France
; APPLICANT: LEGER, Roger
; APPLICANT: ROBITAILLE, Martin
; TITLE OF INVENTION: Long lasting natriuretic peptide derivatives
; FILE REFERENCE: 500862003401
; CURRENT APPLICATION NUMBER: US/11/040,810
; CURRENT FILING DATE: 2005-01-21
; PRIOR APPLICATION NUMBER: US 10/471,348
; PRIOR FILING DATE: 2003-07-29
; PRIOR APPLICATION NUMBER: PCT/CA03/01097
; PRIOR FILING DATE: 2003-07-29
; PRIOR APPLICATION NUMBER: US 60/400,199
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 60/400,413
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 09/623,548
; PRIOR FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: PCT/US00/13576
; PRIOR FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: US 09/657/276
; PRIOR FILING DATE: 2000-09-07
; NUMBER OF SEQ ID NOS: 58
; SEQ ID NO 33
; LENGTH: 24
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: DISULFID
; LOCATION: From 1 to 17
; NAME/KEY: SITE
; LOCATION: 24
; OTHER INFORMATION: Xaa represents Lys(AEEA-MPA) -CONH2
; OTHER INFORMATION: Description of Sequence: synthetic peptide
US-11-040-810-33
Query Match      100.0%; Score 92; DB 6; Length 24;
Best Local Similarity 100.0%; Pred. No. 4.4e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  CFCGRKMDRISSSSGLGC 17
|||||
RESULT 12
US-10-471-348-22
; Sequence 22, Application US/10471348
; Publication No. US20040266673A1
; GENERAL INFORMATION:
; APPLICANT: ConjuChem, Inc.
; TITLE OF INVENTION: Long lasting natriuretic peptide derivatives
; FILE REFERENCE: 2710
; CURRENT APPLICATION NUMBER: US/10/471,348
; CURRENT FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: US 60/400,199
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 60/400,413
; PRIOR FILING DATE: 2002-07-31
; NUMBER OF SEQ ID NOS: 58
```

```
; SEQ ID NO 22
; LENGTH: 25
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: DISULFID
; LOCATION: From 3 to 19
; FEATURE:
; NAME/KEY: AMIDATION
; LOCATION: 25
; OTHER INFORMATION: Xaa represents His-CONH2
; OTHER INFORMATION: Description of Sequence: synthetic peptide
US-10-471-348-22
Query Match      100.0%; Score 92; DB 5; Length 25;
Best Local Similarity 100.0%; Pred. No. 4.6e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  CFCGRKMDRISSSSGLGC 17
|||||
Db      3  CFCGRKMDRISSSSGLGC 19
|||||
RESULT 13
US-10-471-348-24
; Sequence 24, Application US/10471348
; Publication No. US20040266673A1
; GENERAL INFORMATION:
; APPLICANT: ConjuChem, Inc.
; TITLE OF INVENTION: Long lasting natriuretic peptide derivatives
; FILE REFERENCE: 2710
; CURRENT APPLICATION NUMBER: US/10/471,348
; CURRENT FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: US 60/400,199
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 60/400,413
; PRIOR FILING DATE: 2002-07-31
; NUMBER OF SEQ ID NOS: 58
; SEQ ID NO 24
; LENGTH: 25
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: DISULFID
; LOCATION: From 3 to 19
; NAME/KEY: SITE
; LOCATION: 26
; OTHER INFORMATION: Xaa represents Lys(AEEA-MPA) -CONH2
; OTHER INFORMATION: Description of Sequence: synthetic peptide
US-10-471-348-24
Query Match      100.0%; Score 92; DB 5; Length 25;
Best Local Similarity 100.0%; Pred. No. 4.6e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  CFCGRKMDRISSSSGLGC 17
|||||
Db      3  CFCGRKMDRISSSSGLGC 19
|||||
RESULT 14
US-11-040-810-22
; Sequence 22, Application US/11040810
; Publication No. US20050176641A1
; GENERAL INFORMATION:
; APPLICANT: BAKIS, Peter
; APPLICANT: BRIDON, Dominique P.
; APPLICANT: CARETTE, Julie
; APPLICANT: LECLAIRE, France
; APPLICANT: LEGER, Roger
```

```
; APPLICANT: ROBITAILLE, Martin
; TITLE OF INVENTION: Long lasting natriuretic peptide derivatives
; FILE REFERENCE: 500862003401
; CURRENT APPLICATION NUMBER: US/11/040,810
; CURRENT FILING DATE: 2005-01-21
; PRIOR APPLICATION NUMBER: US 10/471,348
; PRIOR FILING DATE: 2003-07-29
; PRIOR APPLICATION NUMBER: PCT/CA03/01097
; PRIOR FILING DATE: 2003-07-29
; PRIOR APPLICATION NUMBER: US 60/400,199
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 60/400,413
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 09/623,548
; PRIOR FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: PCT/US00/13576
; PRIOR FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: US 09/657/276
; PRIOR FILING DATE: 2000-09-07
; NUMBER OF SEQ ID NOS: 58
; SEQ ID NO 22
; LENGTH: 25
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: DISULFID
; LOCATION: From 3 to 19
; FEATURE:
; NAME/KEY: AMIDATION
; LOCATION: 25
; OTHER INFORMATION: Xaa represents His-CONH2
; OTHER INFORMATION: Description of Sequence: synthetic peptide
; US-11-040-810-22

Query Match          100.0%; Score 92; DB 6; Length 25;
Best Local Similarity 100.0%; Pred. No. 4.6e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  CFGRKMDRISSSSLGLC 17
Db      3  CFGRKMDRISSSSLGLC 19

RESULT 15
US-11-040-810-24
; Sequence 24, Application US/11040810
; Publication No. US20050176641A1
; GENERAL INFORMATION:
; APPLICANT: BAKIS, Peter
; APPLICANT: BRIDON, Dominique P.
; APPLICANT: CARETTE, Julie
; APPLICANT: LECLAIRE, France
; APPLICANT: LEGER, Roger
; APPLICANT: ROBITAILLE, Martin
; TITLE OF INVENTION: Long lasting natriuretic peptide derivatives
; FILE REFERENCE: 500862003401
; CURRENT APPLICATION NUMBER: US/11/040,810
; CURRENT FILING DATE: 2005-01-21
; PRIOR APPLICATION NUMBER: US 10/471,348
; PRIOR FILING DATE: 2003-07-29
; PRIOR APPLICATION NUMBER: PCT/CA03/01097
; PRIOR FILING DATE: 2003-07-29
; PRIOR APPLICATION NUMBER: US 60/400,199
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 60/400,413
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 09/623,548
; PRIOR FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: PCT/US00/13576
; PRIOR FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: US 09/657/276
; PRIOR FILING DATE: 2000-09-07
```

```
; NUMBER OF SEQ ID NOS: 58
; SEQ ID NO 24
; LENGTH: 25
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: DISULFID
; LOCATION: From 3 to 19
; FEATURE:
; NAME/KEY: SITE
; LOCATION: 26
; OTHER INFORMATION: Xaa represents Lys(AEEA-MPA)-CONH2
; OTHER INFORMATION: Description of Sequence: synthetic peptide
; US-11-040-810-24

Query Match          100.0%; Score 92; DB 6; Length 25;
Best Local Similarity 100.0%; Pred. No. 4.6e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  CFGRKMDRISSSSLGLC 17
Db      3  CFGRKMDRISSSSLGLC 19

RESULT 16
US-09-902-517-1
; Sequence 1, Application US/09902517
; Publication No. US20030109430A1
; GENERAL INFORMATION:
; APPLICANT: Seilhamer, Jeffrey J.
; APPLICANT: Lewicki, John
; APPLICANT: Scarborough, Robert M.
; APPLICANT: Porter, Gordon J.
; TITLE OF INVENTION: IMMUNOCASSAYS FOR HUMAN AND CANINE BRAIN
; TITLE OF INVENTION: NATRIURETIC PEPTIDE
; FILE REFERENCE: 219002025213
; CURRENT APPLICATION NUMBER: US/09/902,517
; CURRENT FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/287,892
; PRIOR FILING DATE: 1999-04-07
; PRIOR APPLICATION NUMBER: 08/850,910
; PRIOR FILING DATE: 1997-05-05
; PRIOR APPLICATION NUMBER: 07/477,226
; PRIOR FILING DATE: 1990-02-08
; PRIOR APPLICATION NUMBER: 07/299,880
; PRIOR FILING DATE: 1989-01-19
; PRIOR APPLICATION NUMBER: 07/206,470
; PRIOR FILING DATE: 1988-06-14
; PRIOR APPLICATION NUMBER: 07/200,383
; PRIOR FILING DATE: 1988-05-31
; NUMBER OF SEQ ID NOS: 50
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 26
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: A portion of human ANP and pBNP.
; US-09-902-517-1

Query Match          100.0%; Score 92; DB 3; Length 26;
Best Local Similarity 100.0%; Pred. No. 4.8e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  CFGRKMDRISSSSLGLC 17
Db      4  CFGRKMDRISSSSLGLC 20

RESULT 17
US-10-106-806-7
; Sequence 7, Application US/10106806
```

RESULT 19

```
RESULT 21
US-10-947-730-7
; Sequence 7, Application US/10947730
; Publication No. US20050059600A1
; GENERAL INFORMATION:
; APPLICANT: Burnett, Jr., John C.
; APPLICANT: Lisy, Ondrej
; TITLE OF INVENTION: Chimeric natriuretic peptides
; FILE REFERENCE: 150.199US2
; CURRENT APPLICATION NUMBER: US/10/947,730
; CURRENT FILING DATE: 2004-09-23
; PRIOR APPLICATION NUMBER: US/10/106,806
; PRIOR FILING DATE: 2002-03-26
; PRIOR APPLICATION NUMBER: US 09/466,268
; PRIOR FILING DATE: 1999-12-17
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 7
; LENGTH: 26
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-947-730-7

Query Match      100.0%; Score 92; DB 5; Length 26;
Best Local Similarity 100.0%; Pred. No. 4.8e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
   |||||
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 22
US-10-723-933-106
; Sequence 106, Application US/10723933
; Publication No. US20040203081A1
; GENERAL INFORMATION:
; APPLICANT: James, Kenneth D.
; APPLICANT: Rahdakrishnan, Balasingham
; APPLICANT: Malkar, Navdeep B.
; APPLICANT: Miller, Mark A.
; APPLICANT: Ekwuribe, Nnochiri N.
; TITLE OF INVENTION: NATRIURETIC COMPOUNDS, CONJUGATES, AND USES THEREOF
; FILE REFERENCE: 9233.108
; CURRENT APPLICATION NUMBER: US/10/723,933
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/429,151
; PRIOR FILING DATE: 2002-11-26
; NUMBER OF SEQ ID NOS: 137
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 106
; LENGTH: 29
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Natriuretic peptide
US-10-723-933-106

Query Match      100.0%; Score 92; DB 4; Length 29;
Best Local Similarity 100.0%; Pred. No. 5.4e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
   |||||
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 23
US-10-723-933-123
; Sequence 123, Application US/10723933
; Publication No. US20040203081A1
; GENERAL INFORMATION:
; APPLICANT: James, Kenneth D.
; APPLICANT: Rahdakrishnan, Balasingham
; APPLICANT: Malkar, Navdeep B.
; APPLICANT: Miller, Mark A.
; APPLICANT: Ekwuribe, Nnochiri N.
; TITLE OF INVENTION: NATRIURETIC COMPOUNDS, CONJUGATES, AND USES THEREOF
; FILE REFERENCE: 9233.108
; CURRENT APPLICATION NUMBER: US/10/723,933
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/429,151
; PRIOR FILING DATE: 2002-11-26
; NUMBER OF SEQ ID NOS: 137
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 123
; LENGTH: 29
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Natriuretic peptide
US-10-723-933-123

Query Match      100.0%; Score 92; DB 3; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
   |||||
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 24
US-09-752-724-4
; Sequence 4, Application US/09752724
; Patent No. US20010027181A1
; GENERAL INFORMATION:
; APPLICANT: KITAKAZE, Masafumi
; TITLE OF INVENTION: PHARMACEUTICAL COMPOSITION FOR USE IN TREATMENT OR PROPHYLAXIS
; TITLE OF INVENTION: ISCHEMIC HEART DISEASE
; FILE REFERENCE: PP/S-38-252US
; CURRENT APPLICATION NUMBER: US/09/752,724
; CURRENT FILING DATE: 2001-01-03
; PRIOR APPLICATION NUMBER: JP 98134/2000
; PRIOR FILING DATE: 2000-03-31
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 4
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-752-724-4

Query Match      100.0%; Score 92; DB 3; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
   |||||
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 25
US-09-466-268B-6
; Sequence 6, Application US/09466268B
; Publication No. US20020082219A1
; GENERAL INFORMATION:
; APPLICANT: Burnett, Jr., John C.
; APPLICANT: Lisy, Ondrej
; TITLE OF INVENTION: Chimeric natriuretic peptides
; FILE REFERENCE: 150.199US1
; CURRENT APPLICATION NUMBER: US/09/466,268B
```

```

; CURRENT FILING DATE: 1999-12-17
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 6
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-466-2688-6

```

```

Query Match      100.0%; Score 92; DB 3; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

QY      1 CFGRKMDRISSSSGLGC 17
      |||||
DB      10 CFGRKMDRISSSSGLGC 26

```

```

RESULT 26
US-09-902-517-49
; Sequence 49, Application US/09902517
; Publication No. US20030109430A1
; GENERAL INFORMATION:
; APPLICANT: Seilhamer, Jeffrey J.
; APPLICANT: Lewicki, John
; APPLICANT: Scarborough, Robert M.
; APPLICANT: Porter, Gordon J.
; TITLE OF INVENTION: IMMUNOASSAYS FOR HUMAN AND CANINE BRAIN
; TITLE OF INVENTION: NATRIURETIC PEPTIDE
; FILE REFERENCE: 219002025213
; CURRENT APPLICATION NUMBER: US/09/902,517
; CURRENT FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/287,892
; PRIOR FILING DATE: 1999-04-07
; PRIOR APPLICATION NUMBER: 08/850,910
; PRIOR FILING DATE: 1997-05-05
; PRIOR APPLICATION NUMBER: 07/477,226
; PRIOR FILING DATE: 1990-02-08
; PRIOR APPLICATION NUMBER: 07/299,880
; PRIOR FILING DATE: 1989-01-19
; PRIOR APPLICATION NUMBER: 07/206,470
; PRIOR FILING DATE: 1988-06-14
; PRIOR APPLICATION NUMBER: 07/200,383
; PRIOR FILING DATE: 1988-05-31
; NUMBER OF SEQ ID NOS: 50
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 49
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: R2
US-09-902-517-49

```

```

Query Match      100.0%; Score 92; DB 3; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

QY      1 CFGRKMDRISSSSGLGC 17
      |||||
DB      10 CFGRKMDRISSSSGLGC 26

```

```

RESULT 27
US-10-106-806-6
; Sequence 6, Application US/10106806
; Publication No. US20030069186A1
; GENERAL INFORMATION:
; APPLICANT: Burnett, Jr., John C.
; APPLICANT: Lisy, Ondrej
; TITLE OF INVENTION: Chimeric natriuretic peptides
; FILE REFERENCE: 150.199US2
; CURRENT APPLICATION NUMBER: US/10/106,806

```

```

; CURRENT FILING DATE: 2002-03-26
; PRIOR APPLICATION NUMBER: US 09/466,268
; PRIOR FILING DATE: 1999-12-17
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 6
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-106-806-6

```

```

Query Match      100.0%; Score 92; DB 4; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

QY      1 CFGRKMDRISSSSGLGC 17
      |||||
DB      10 CFGRKMDRISSSSGLGC 26

```

```

RESULT 28
US-10-197-954-24
; Sequence 24, Application US/10197954
; Publication No. US20030119021A1
; GENERAL INFORMATION:
; APPLICANT: K'ster, Hubert
; APPLICANT: Siddiqi, Suhaib
; APPLICANT: Little, Daniel
; TITLE OF INVENTION: Capture Compounds, Collections Thereof
; TITLE OF INVENTION: And Methods For Analyzing The Proteome And Complex
; TITLE OF INVENTION: Compositions
; FILE REFERENCE: 24743-2305
; CURRENT APPLICATION NUMBER: US/10/197,954
; CURRENT FILING DATE: 2002-07-16
; PRIOR APPLICATION NUMBER: 60/306,019
; PRIOR FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: 60/314,123
; PRIOR FILING DATE: 2001-08-21
; PRIOR APPLICATION NUMBER: 60/363,433
; PRIOR FILING DATE: 2002-03-11
; NUMBER OF SEQ ID NOS: 149
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 24
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-197-954-24

```

```

Query Match      100.0%; Score 92; DB 4; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

QY      1 CFGRKMDRISSSSGLGC 17
      |||||
DB      10 CFGRKMDRISSSSGLGC 26

```

```

RESULT 29
US-10-402-021-49
; Sequence 49, Application US/10402021
; Publication No. US20040002458A1
; GENERAL INFORMATION:
; APPLICANT: Seilhamer, Jeffrey J.
; APPLICANT: Lewicki, John
; APPLICANT: Scarborough, Robert M.
; APPLICANT: Porter, Gordon J.
; TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS AND METHODS USING NATRIURETIC PEPTID
; TITLE OF INVENTION: (AMENDED)
; FILE REFERENCE: 219002025203
; CURRENT APPLICATION NUMBER: US/10/402,021
; CURRENT FILING DATE: 2003-03-27
; PRIOR APPLICATION NUMBER: 09/287,892
; PRIOR FILING DATE: 1999-04-07

```



```

; PRIOR APPLICATION NUMBER: 08/850,910
; PRIOR FILING DATE: 1997-05-05
; PRIOR APPLICATION NUMBER: 07/477,226
; PRIOR FILING DATE: 1990-02-08
; PRIOR APPLICATION NUMBER: 07/299,880
; PRIOR FILING DATE: 1989-01-19
; PRIOR APPLICATION NUMBER: 07/206,470
; PRIOR FILING DATE: 1988-06-14
; PRIOR APPLICATION NUMBER: 07/200,383
; PRIOR FILING DATE: 1988-05-31
; NUMBER OF SEQ ID NOS: 50
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 49
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: R2
US-10-402-021-49

```

```

Query Match      100.0%; Score 92; DB 4; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

QY      1  CFGRKMDRISSSSGLGC 17
      |||||
DB      10  CFGRKMDRISSSSGLGC 26

```

```

RESULT 30
US-10-664-605-4
; Sequence 4, Application US/10664605
; Publication No. US20040138134A1
; GENERAL INFORMATION:
; APPLICANT: ProChon Biotech Ltd.
; APPLICANT: Golembio, Myriam
; TITLE OF INVENTION: METHOD AND COMPOSITION FOR TREATMENT OF SKELETAL DYSPLASIAS
; FILE REFERENCE: PRO/011/US
; CURRENT APPLICATION NUMBER: US/10/664,605
; CURRENT FILING DATE: 2003-09-15
; PRIOR APPLICATION NUMBER: US 60/276,939
; PRIOR FILING DATE: 2001-02-20
; PRIOR APPLICATION NUMBER: IL 142118
; PRIOR FILING DATE: 2001-02-20
; PRIOR APPLICATION NUMBER: PCT/IL02/00229
; PRIOR FILING DATE: 2002-02-20
; NUMBER OF SEQ ID NOS: 71
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Homo sapiens
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: P16860
; DATABASE ENTRY DATE: 2001-10-16
; RELEVANT RESIDUES: (103)..(134)
US-10-664-605-4

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Query Match      100.0%; Score 92; DB 4; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY      1  CFGRKMDRISSSSGLGC 17
      |||||
DB      10  CFGRKMDRISSSSGLGC 26

```

```

RESULT 31
US-10-723-933-33
; Sequence 33, Application US/10723933
; Publication No. US20040203081A1
; GENERAL INFORMATION:

```

```

; APPLICANT: James, Kenneth D.
; APPLICANT: Rahdakrishnan, Balasingham
; APPLICANT: Malkar, Navdeep B.
; APPLICANT: Miller, Mark A.
; APPLICANT: Ekwuribe, Nnochiri N.
; TITLE OF INVENTION: NATRIURETIC COMPOUNDS, CONJUGATES, AND USES THEREOF
; FILE REFERENCE: 9233.108
; CURRENT APPLICATION NUMBER: US/10/723,933
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/429,151
; PRIOR FILING DATE: 2002-11-26
; NUMBER OF SEQ ID NOS: 137
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 33
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Natriuretic peptide
; FEATURE:
; NAME/KEY: MISC_FEATURE
; LOCATION: (1)..(9)
; OTHER INFORMATION: Polypeptide may be present or absent
; FEATURE:
; NAME/KEY: MISC_FEATURE
; LOCATION: (7)..(9)
; OTHER INFORMATION: Polypeptide may be present or absent
US-10-723-933-33

```

```

Query Match      100.0%; Score 92; DB 4; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

QY      1  CFGRKMDRISSSSGLGC 17
      |||||
DB      10  CFGRKMDRISSSSGLGC 26

```

```

RESULT 32
US-10-723-933-53
; Sequence 53, Application US/10723933
; Publication No. US20040203081A1
; GENERAL INFORMATION:
; APPLICANT: James, Kenneth D.
; APPLICANT: Rahdakrishnan, Balasingham
; APPLICANT: Malkar, Navdeep B.
; APPLICANT: Miller, Mark A.
; APPLICANT: Ekwuribe, Nnochiri N.
; TITLE OF INVENTION: NATRIURETIC COMPOUNDS, CONJUGATES, AND USES THEREOF
; FILE REFERENCE: 9233.108
; CURRENT APPLICATION NUMBER: US/10/723,933
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/429,151
; PRIOR FILING DATE: 2002-11-26
; NUMBER OF SEQ ID NOS: 137
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 53
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Natriuretic peptide
; FEATURE:
; NAME/KEY: MISC_FEATURE
; LOCATION: (1)..(9)
; OTHER INFORMATION: Polypeptide may be present or absent
; FEATURE:
; NAME/KEY: MISC_FEATURE
; LOCATION: (7)..(9)
; OTHER INFORMATION: Polypeptide may be present or absent
US-10-723-933-53

```

```

Query Match      100.0%; Score 92; DB 4; Length 32;

```

Best Local Similarity 100.0%; Pred. No. 5.9e-08; Mismatches 0; Indels 0; Gaps 0;
Matches 17; Conservative 0;

QY 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | | | | |
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 33
US-10-723-933-73
; Sequence 73, Application US/10723933
; Publication No. US20040203081A1
; GENERAL INFORMATION:
; APPLICANT: James, Kenneth D.
; APPLICANT: Randakrishnan, Balasingham
; APPLICANT: Malkar, Navdeep B.
; APPLICANT: Miller, Mark A.
; APPLICANT: Ekwuribe, Nnochiri N.
; TITLE OF INVENTION: NATRIURETIC COMPOUNDS, CONJUGATES, AND USES THEREOF
; FILE REFERENCE: 9233.108
; CURRENT APPLICATION NUMBER: US/10/723,933
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/429,151
; PRIOR FILING DATE: 2002-11-26
; NUMBER OF SEQ ID NOS: 137
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 73
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: DISULFID
; LOCATION: (10)..(26)
; OTHER INFORMATION: Disulfide bond may be present or absent
US-10-723-933-73

Query Match 100.0%; Score 92; DB 4; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | | | | |
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 34
US-10-723-933-110
; Sequence 110, Application US/10723933
; Publication No. US20040203081A1
; GENERAL INFORMATION:
; APPLICANT: James, Kenneth D.
; APPLICANT: Randakrishnan, Balasingham
; APPLICANT: Malkar, Navdeep B.
; APPLICANT: Miller, Mark A.
; APPLICANT: Ekwuribe, Nnochiri N.
; TITLE OF INVENTION: NATRIURETIC COMPOUNDS, CONJUGATES, AND USES THEREOF
; FILE REFERENCE: 9233.108
; CURRENT APPLICATION NUMBER: US/10/723,933
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/429,151
; PRIOR FILING DATE: 2002-11-26
; NUMBER OF SEQ ID NOS: 137
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 110
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Natriuretic peptide
; FEATURE:
; NAME/KEY: MISC_FEATURE
; LOCATION: (30)..(30)
; OTHER INFORMATION: Xaa is not Arg

US-10-723-933-110

Query Match 100.0%; Score 92; DB 4; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | | | | |
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 35
US-10-723-933-111
; Sequence 111, Application US/10723933
; Publication No. US20040203081A1
; GENERAL INFORMATION:
; APPLICANT: James, Kenneth D.
; APPLICANT: Randakrishnan, Balasingham
; APPLICANT: Malkar, Navdeep B.
; APPLICANT: Miller, Mark A.
; APPLICANT: Ekwuribe, Nnochiri N.
; TITLE OF INVENTION: NATRIURETIC COMPOUNDS, CONJUGATES, AND USES THEREOF
; FILE REFERENCE: 9233.108
; CURRENT APPLICATION NUMBER: US/10/723,933
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/429,151
; PRIOR FILING DATE: 2002-11-26
; NUMBER OF SEQ ID NOS: 137
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 111
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Natriuretic peptide
; FEATURE:
; NAME/KEY: MISC_FEATURE
; LOCATION: (27)..(27)
; OTHER INFORMATION: Xaa is not Lys
US-10-723-933-111

Query Match 100.0%; Score 92; DB 4; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | | | | |
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 36
US-10-818-246-5
; Sequence 5, Application US/10818246
; Publication No. US20040249121A1
; GENERAL INFORMATION:
; APPLICANT: Novotide, Ltd.
; TITLE OF INVENTION: PROCESS FOR PRODUCTION OF CYCLIC PEPTIDES
; FILE REFERENCE: 12647/46002
; CURRENT APPLICATION NUMBER: US/10/818,246
; CURRENT FILING DATE: 2004-04-05
; PRIOR APPLICATION NUMBER: 60/461,222
; PRIOR FILING DATE: 2003-04-07
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 5
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Peptide
US-10-818-246-5

Query Match 100.0%; Score 92; DB 5; Length 32;

Best Local Similarity 100.0%; Pred. No. 5.9e-08; Mismatches 0; Indels 0; Gaps 0;
Matches 17; Conservative 0;

QY 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | | | | |
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 37
US-10-471-348-21
; Sequence 21, Application US/10471348
; Publication No. US20040266673A1
; GENERAL INFORMATION:
; APPLICANT: ConjuChem, Inc.
; TITLE OF INVENTION: Long lasting natriuretic peptide derivatives
; FILE REFERENCE: 2710
; CURRENT APPLICATION NUMBER: US/10/471,348
; CURRENT FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: US 60/400,199
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 60/400,413
; PRIOR FILING DATE: 2002-07-31
; NUMBER OF SEQ ID NOS: 58
; SEQ ID NO 21
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: DISULFID
; LOCATION: From 10 to 26
; FEATURE:
; NAME/KEY: AMIDATION
; LOCATION: 32
; OTHER INFORMATION: Xaa represents His-CONH2
; OTHER INFORMATION: Description of Sequence: synthetic peptide
US-10-471-348-21

Query Match 100.0%; Score 92; DB 5; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08; Mismatches 0; Indels 0; Gaps 0;
Matches 17; Conservative 0;

QY 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | | | | |
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 38
US-10-471-348-54
; Sequence 54, Application US/10471348
; Publication No. US20040266673A1
; GENERAL INFORMATION:
; APPLICANT: ConjuChem, Inc.
; TITLE OF INVENTION: Long lasting natriuretic peptide derivatives
; FILE REFERENCE: 2710
; CURRENT APPLICATION NUMBER: US/10/471,348
; CURRENT FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: US 60/400,199
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 60/400,413
; PRIOR FILING DATE: 2002-07-31
; NUMBER OF SEQ ID NOS: 58
; SEQ ID NO 54
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: DISULFID
; LOCATION: From 10 to 26
; FEATURE:
; NAME/KEY: SITE
; LOCATION: 1
; OTHER INFORMATION: Xaa represents MPA-AEEA-Ser

; FEATURE:
; NAME/KEY: AMIDATION
; LOCATION: 32
; OTHER INFORMATION: Xaa represents His-CONH2
; FEATURE:
; OTHER INFORMATION: Description of Sequence: synthetic peptide
US-10-471-348-54

Query Match 100.0%; Score 92; DB 5; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08; Mismatches 0; Indels 0; Gaps 0;
Matches 17; Conservative 0;

QY 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | | | | |
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 39
US-10-760-085-24
; Sequence 24, Application US/10760085
; Publication No. US20050042771A1
; GENERAL INFORMATION:
; APPLICANT: Hubert K*ster
; APPLICANT: Daniel Paul Little
; APPLICANT: Suhaib Mahmood Siddiqi
; APPLICANT: Matthew Peter Grealish
; APPLICANT: Subramaniam Marappan
; APPLICANT: Chester Frederick Haasman III
; APPLICANT: Ping Yip
; TITLE OF INVENTION: Capture Compounds, Collections Thereof
; TITLE OF INVENTION: And Methods For Analyzing The Proteome And Complex
; TITLE OF INVENTION: Compositions
; FILE REFERENCE: 24743-2309
; CURRENT APPLICATION NUMBER: US/10/760,085
; CURRENT FILING DATE: 2004-01-16
; PRIOR APPLICATION NUMBER: 60/441,398
; PRIOR FILING DATE: 2003-01-16
; NUMBER OF SEQ ID NOS: 149
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 24
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-760-085-24

Query Match 100.0%; Score 92; DB 5; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08; Mismatches 0; Indels 0; Gaps 0;
Matches 17; Conservative 0;

QY 1 CFGRKMDRISSSSGLGC 17
| | | | | | | | | | | | | | | | | | | |
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 40
US-10-947-730-6
; Sequence 6, Application US/10947730
; Publication No. US20050059600A1
; GENERAL INFORMATION:
; APPLICANT: Burnett, Jr., John C.
; APPLICANT: Liszy, Ondrej
; TITLE OF INVENTION: Chimeric natriuretic peptides
; FILE REFERENCE: 150.199US2
; CURRENT APPLICATION NUMBER: US/10/947,730
; CURRENT FILING DATE: 2004-09-23
; PRIOR APPLICATION NUMBER: US/10/106,806
; PRIOR FILING DATE: 2002-03-26
; PRIOR APPLICATION NUMBER: US 09/466,268
; PRIOR FILING DATE: 1999-12-17
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 6
; LENGTH: 32

```
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-947-730-6

Query Match      100.0%; Score 92; DB 5; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 41
US-10-989-397-2
; Sequence 2, Application US/10989397
; Publication No. US20050089514A1
; GENERAL INFORMATION:
; APPLICANT: Forssmann, Wolf-Georg
; APPLICANT: Krause, Alexander
; APPLICANT: Maronde, Erik
; TITLE OF INVENTION: Use of Natriuretic Peptides as Antibiotically Active
; TITLE OF INVENTION: Substances for the Treatment of Bacterial Infections
; FILE REFERENCE: 020265us
; CURRENT APPLICATION NUMBER: US/10/989,397
; CURRENT FILING DATE: 2004-11-17
; PRIOR APPLICATION NUMBER: US/10/069,128
; PRIOR FILING DATE: 2002-03-04
; PRIOR APPLICATION NUMBER: DE19942230.3
; PRIOR FILING DATE: 1999-09-03
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 2
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-989-397-2

Query Match      100.0%; Score 92; DB 5; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 42
US-10-775-204-1802
; Sequence 1802, Application US/10775204
; Publication No. US20050186664A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Haseltine, William A.
; APPLICANT: Balance, David J.
; APPLICANT: Turner, Andrew J.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF564
; CURRENT APPLICATION NUMBER: US/10/775,204
; CURRENT FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/341,811
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/360,000
; PRIOR FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 60/378,950
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/398,008
; PRIOR FILING DATE: 2002-07-24
; PRIOR APPLICATION NUMBER: 60/411,355
; PRIOR FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/414,984
; PRIOR FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: 60/417,611

; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-947-730-6

Query Match      100.0%; Score 92; DB 5; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 43
US-11-040-810-21
; Sequence 21, Application US/11040810
; Publication No. US20050176641A1
; GENERAL INFORMATION:
; APPLICANT: BAKIS, Peter
; APPLICANT: BRIDON, Dominique P.
; APPLICANT: CARETTE, Julie
; APPLICANT: LECLAIRE, France
; APPLICANT: LEGER, Roger
; APPLICANT: ROBITAILLE, Martin
; TITLE OF INVENTION: Long lasting natriuretic peptide derivatives
; FILE REFERENCE: 500862003401
; CURRENT APPLICATION NUMBER: US/11/040,810
; CURRENT FILING DATE: 2005-01-21
; PRIOR APPLICATION NUMBER: US 10/471,348
; PRIOR FILING DATE: 2003-07-29
; PRIOR APPLICATION NUMBER: PCT/CA03/01097
; PRIOR FILING DATE: 2003-07-29
; PRIOR APPLICATION NUMBER: US 60/400,199
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 60/400,413
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 09/623,548
; PRIOR FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: PCT/US00/13576
; PRIOR FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: US 09/657/276
; PRIOR FILING DATE: 2000-09-07
; NUMBER OF SEQ ID NOS: 58
; SEQ ID NO 21
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: DISULFID
; LOCATION: From 10 to 26
; FEATURE:
; NAME/KEY: AMIDATION
; LOCATION: 32
; OTHER INFORMATION: Xaa represents His-CONH2
; OTHER INFORMATION: Description of Sequence: synthetic peptide
US-11-040-810-21

Query Match      100.0%; Score 92; DB 6; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

QY 1 CFGRKMDRISSSSGLGC 17
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 44

US-11-040-810-54
; Sequence 54, Application US/11040810
; Publication No. US20050176641A1
; GENERAL INFORMATION:
; APPLICANT: BAKIS, Peter
; APPLICANT: BRIDON, Dominique P.
; APPLICANT: CARETTE, Julie
; APPLICANT: LECLAIRE, France
; APPLICANT: LEGER, Roger
; APPLICANT: ROBITAILLE, Martin
; TITLE OF INVENTION: Long lasting natriuretic peptide derivatives
; FILE REFERENCE: 500862003401
; CURRENT APPLICATION NUMBER: US/11/040,810
; CURRENT FILING DATE: 2005-01-21
; PRIOR APPLICATION NUMBER: US 10/471,348
; PRIOR FILING DATE: 2003-07-29
; PRIOR APPLICATION NUMBER: PCT/CA03/01097
; PRIOR FILING DATE: 2003-07-29
; PRIOR APPLICATION NUMBER: US 60/400,199
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 60/400,413
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 09/623,548
; PRIOR FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: PCT/US00/13576
; PRIOR FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: US 09/657/276
; PRIOR FILING DATE: 2000-09-07
; NUMBER OF SEQ ID NOS: 58
; SEQ ID NO 54
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: DISULFID
; LOCATION: From 10 to 26
; NAME/KEY: SITE
; LOCATION: 1
; OTHER INFORMATION: Xaa represents MPA-AEEA-Ser
; FEATURE:
; NAME/KEY: AMIDATION
; LOCATION: 32
; OTHER INFORMATION: Xaa represents His-CONH2
; FEATURE:
; OTHER INFORMATION: Description of Sequence: synthetic peptide

Query Match 100.0%; Score 92; DB 6; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 45

US-11-066-697-509
; Sequence 509, Application US/11066697
; Publication No. US20050187159A1
; GENERAL INFORMATION:
; APPLICANT: BRIDON, Dominique P.
; APPLICANT: Ezrin, Alan M.
; APPLICANT: Milner, Peter G.
; APPLICANT: Holmes, Darren L.

; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; FILE REFERENCE: 500862002301
; CURRENT APPLICATION NUMBER: US/11/066,697
; CURRENT FILING DATE: 2005-02-25
; PRIOR APPLICATION NUMBER: 09/657,276
; PRIOR FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-15
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 509
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-11-066-697-509

Query Match 100.0%; Score 92; DB 6; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 10 CFGRKMDRISSSSGLGC 26

RESULT 46

US-11-066-697-516
; Sequence 516, Application US/11066697
; Publication No. US20050187159A1
; GENERAL INFORMATION:
; APPLICANT: BRIDON, Dominique P.
; APPLICANT: Ezrin, Alan M.
; APPLICANT: Milner, Peter G.
; APPLICANT: Holmes, Darren L.
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; FILE REFERENCE: 500862002301
; CURRENT APPLICATION NUMBER: US/11/066,697
; CURRENT FILING DATE: 2005-02-25
; PRIOR APPLICATION NUMBER: 09/657,276
; PRIOR FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-15
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 516
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-11-066-697-516

Query Match 100.0%; Score 92; DB 6; Length 32;
Best Local Similarity 100.0%; Pred. No. 5.9e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CFGRKMDRISSSSGLGC 17
Db 10 CFGRKMDRISSSSGLGC 26


```
Db      10 CFGRKMDRISSSSGLGC 26
|||||
NAME/KEY: SITE
LOCATION: (21)..(21)
OTHER INFORMATION: side chain Bzl modified
FEATURE:
NAME/KEY: SITE
LOCATION: (22)..(22)
OTHER INFORMATION: side chain Bzl modified
FEATURE:
NAME/KEY: SITE
LOCATION: (23)..(23)
OTHER INFORMATION: side chain Bzl modified
FEATURE:
NAME/KEY: SITE
LOCATION: (27)..(27)
OTHER INFORMATION: side chain 4-CH3OBzl modified
FEATURE:
NAME/KEY: SITE
LOCATION: (28)..(28)
OTHER INFORMATION: side chain Cl-Z modified
FEATURE:
NAME/KEY: SITE
LOCATION: (31)..(31)
OTHER INFORMATION: side chain TOS modified
FEATURE:
NAME/KEY: SITE
LOCATION: (32)..(32)
OTHER INFORMATION: side chain TOS modified
FEATURE:
NAME/KEY: SITE
LOCATION: (33)..(33)
OTHER INFORMATION: side chain Bom modified
US-10-697-886-1
Query Match      100.0%; Score 92; DB 5; Length 33;
Best Local Similarity 100.0%; Pred. No. 6.1e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 CFGRKMDRISSSSGLGC 17
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Db      11 CFGRKMDRISSSSGLGC 27
|||||

RESULT 50
US-10-471-348-55
; Sequence 55, Application US/10471348
; Publication No. US20040266673A1
; GENERAL INFORMATION:
; APPLICANT: ConjuChem, Inc.
; TITLE OF INVENTION: Long lasting natriuretic peptide derivatives
; FILE REFERENCE: 2710
; CURRENT APPLICATION NUMBER: US/10/471,348
; CURRENT FILING DATE: 2003-09-08
; PRIOR APPLICATION NUMBER: US 60/400,199
; PRIOR FILING DATE: 2002-07-31
; PRIOR APPLICATION NUMBER: US 60/400,413
; PRIOR FILING DATE: 2002-07-31
; NUMBER OF SEQ ID NOS: 58
; SEQ ID NO 55
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: DISULFID
; LOCATION: From 10 to 26
; FEATURE:
; NAME/KEY: SITE
; LOCATION: 33
; OTHER INFORMATION: Xaa represents Lys(AEEA-MPA)-CONH2
; FEATURE:
; OTHER INFORMATION: Description of Sequence: synthetic peptide
US-10-471-348-55
Query Match      100.0%; Score 92; DB 5; Length 33;

Db      10 CFGRKMDRISSSSGLGC 26
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NAME/KEY: SITE
LOCATION: (1)..(1)
OTHER INFORMATION: N-terminal BOC modified side chain Br-Z modified
FEATURE:
NAME/KEY: SITE
LOCATION: (2)..(2)
OTHER INFORMATION: side chain Bzl modified
FEATURE:
NAME/KEY: SITE
LOCATION: (4)..(4)
OTHER INFORMATION: side chain Cl-Z modified
FEATURE:
NAME/KEY: SITE
LOCATION: (9)..(9)
OTHER INFORMATION: side chain Bzl modified
FEATURE:
NAME/KEY: SITE
LOCATION: (11)..(11)
OTHER INFORMATION: side chain 4-CH3OBzl modified
FEATURE:
NAME/KEY: SITE
LOCATION: (14)..(14)
OTHER INFORMATION: side chain TOS modified
FEATURE:
NAME/KEY: SITE
LOCATION: (15)..(15)
OTHER INFORMATION: side chain Cl-Z modified
FEATURE:
NAME/KEY: SITE
LOCATION: (17)..(17)
OTHER INFORMATION: side chain OCHex modified
FEATURE:
NAME/KEY: SITE
LOCATION: (20)..(20)
OTHER INFORMATION: side chain Bzl modified
FEATURE:

US-10-697-886-1
; Sequence 1, Application US/10697886
; Publication No. US20040253655A1
; GENERAL INFORMATION:
; APPLICANT: TSUJI, Tetsuo
; APPLICANT: INOUE, Ken
; APPLICANT: YAMAUCHI, Akira
; APPLICANT: KONO, Masao
; APPLICANT: IGANO, Ken'ichi
; TITLE OF INVENTION: Monoclonal Antibody Recognizing C-terminus of hBNP
; FILE REFERENCE: 0032-0262P
; CURRENT APPLICATION NUMBER: US/10/697,886
; CURRENT FILING DATE: 2003-10-31
; PRIOR APPLICATION NUMBER: US/09/942,709
; PRIOR FILING DATE: 2001-08-31
; PRIOR APPLICATION NUMBER: JP 3-326961
; PRIOR FILING DATE: 1991-11-14
; PRIOR APPLICATION NUMBER: US 07/976,457
; PRIOR FILING DATE: 1992-11-13
; PRIOR APPLICATION NUMBER: US 08/236,013
; PRIOR FILING DATE: 1994-05-02
; PRIOR APPLICATION NUMBER: US 08/749,031
; PRIOR FILING DATE: 1996-11-14
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: synthetic amino acid according to the usual solid phase method
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (1)..(1)
; OTHER INFORMATION: N-terminal BOC modified side chain Br-Z modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (2)..(2)
; OTHER INFORMATION: side chain Bzl modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (4)..(4)
; OTHER INFORMATION: side chain Cl-Z modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (9)..(9)
; OTHER INFORMATION: side chain Bzl modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (11)..(11)
; OTHER INFORMATION: side chain 4-CH3OBzl modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (14)..(14)
; OTHER INFORMATION: side chain TOS modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (15)..(15)
; OTHER INFORMATION: side chain Cl-Z modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (17)..(17)
; OTHER INFORMATION: side chain OCHex modified
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (20)..(20)
; OTHER INFORMATION: side chain Bzl modified
; FEATURE:
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Best Local Similarity 100.0%; Pred. No. 6.1e-08;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CFGRKMDRISSSGLGC 17
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Db 10 CFGRKMDRISSSGLGC 26

Search completed: January 25, 2006, 18:50:01
Job time : 77 secs

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